Sally, this is your file copy.

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

OHD 045 205424

PRC

January 20, 1995

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency Region 5
7th Floor, Mail Code HRM-7J
77 West Jackson Boulevard
Chicago, IL 60604

Subject: **EPA Contract No. 68-W4-0007**
Work Assignment No. R05034
Amendment No. 2, Revised Cost Estimate
Ekco Housewares, Inc., Corrective Action Oversight and Technical Support

Dear Mr. Orenstein:

PRC Environmental Management, Inc. (PRC), is submitting two copies of the revised cost estimate for the above-referenced work assignment. Please forward one copy of the revised cost estimate to Ms. Sally Averill, the U.S. Environmental Protection Agency (EPA) work assignment manager (WAM).

The revised cost estimate has been prepared in accordance with Work Assignment Amendment No. 2, which authorizes work to proceed in option period (OP) 1. The technical approach and all other elements of the approved work plan and subsequent amendments are incorporated into this revised cost estimate by reference.

The proposed technical approach and revised cost estimate have been prepared in accordance with the original EPA statement of work, the requirements of Amendment No. 2, and discussions with the EPA WAM and the PRC project manager, Mr. Jeff Swano. The OP 1 budget is estimated at 502 level-of-effort (LOE) hours and a total cost of $29,623. The revised cost estimate information is business confidential.

PRC requests that the EPA WAM approve this revised cost estimate by February 6, 1995. This will allow sufficient time for the EPA contracting officer's (CO) review and approval and will not impede the progress of work. Please note that PRC must stop work if the EPA CO does not approve this revised cost estimate by March 3, 1995.

Please contact me at (312) 856-8766 or Jeff Swano at (312) 946-6469 if you have any questions or need additional information.

Sincerely,

Edward Schuessler
Regional Manager

ES/jmk

Enclosures (2)

cc: Jean Rellins, EPA CO
Allen Pearce, EPA Headquarters Project Officer
Arthur Glazer, PRC Program Manager
Doris Bean, PRC Financial Manager
Jeff Swano, PRC Project Manager

EKCO HOUSEWARES, INC.
MASSILON, OHIO
CORRECTIVE ACTION OVERSIGHT AND TECHNICAL SUPPORT

AMENDMENT NO. 2
OPTION PERIOD 1
REVISED COST ESTIMATE

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Solid Waste
Washington, DC 20460

EPA Region	:	5
Site	:	Ekco Housewares, Inc.
Contract No.	:	68-W4-0007
Work Assignment No.	:	R05034
Date Prepared	:	January 20, 1995
EPA Work Assignment Manager	:	Sally Averill
Telephone No.	:	312/886-4439
Prepared by	:	PRC Environmental Management, Inc.
PRC Project Manager	:	Jeff Swano
Telephone No.	:	312/946-6469

Approved:

Edward Schuessler
Regional Manager

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), submitted a work plan for Work Assignment No. R05034, Contract No. 68-W4-0007, to the U.S. Environmental Protection Agency (EPA) on July 19, 1994. In response to Amendment No. 2 to the work assignment, which authorizes work in option period (OP) 1, PRC has prepared this revised cost estimate. The technical approach and all other elements of the approved work plan and subsequent amendments remain unchanged and are incorporated into this revised cost estimate by reference.

Section 2.0 of this revised cost estimate describes the amended statement of work (SOW); Section 3.0 presents the technical approach to completing the amended SOW; and Section 4.0 and Appendix A provide the revised cost estimate.

2.0 STATEMENT OF WORK

The SOW for this work assignment remains the same as the original SOW. All requirements of the original SOW are incorporated into this revised cost estimate by reference.

3.0 TECHNICAL APPROACH FOR AMENDMENT NO. 2 TASKS

The SOW and technical approach for this work assignment remain unchanged. The technical approach for Tasks 2 through 6 is described in the approved work plan dated July 19, 1994.

4.0 REVISED COST ESTIMATE

The revised work assignment cost estimate is presented in five tables in Appendix A. Table 1 summarizes the revised cost estimate. Table 2 presents the proposed staffing plan for OP 1. Tables A-1, A-2, and A-3 respectively detail the revised cost estimate, travel plan, and other direct costs for OP 1. The assumptions made in developing the revised cost estimate are described in Appendix A.

APPENDIX A

AMENDMENT NO. 2
OPTION PERIOD 1
REVISED COST ESTIMATE

Work Assignment No. R05034

(Seven Sheets)

CONFIDENTIAL BUSINESS INFORMATION

AMENDMENT NO. 2
OPTION PERIOD 1
REVISED COST ESTIMATE
Work Assignment No. R05034

The work assignment revised cost estimate includes five tables. Table 1 summarizes the work assignment cost through this amendment, Table 2 shows the proposed staffing plan used to prepare the revised cost estimate, Table A-1 details the work assignment revised cost estimate, Table A-2 shows the revised PRC Environmental Management, Inc. (PRC), travel plan, and Table A-3 shows the revised other direct costs (ODC). Task-specific assumptions are described below.

Task 1 -- Prepare Revised Cost Estimate

For Task 1, the level-of-effort (LOE) hours include time to prepare the revised cost estimate. PRC estimates that 12 LOE hours will be needed.

Task 2 -- Perform Field Oversight

For Task 2, the scope of work (SOW) indicates that a total of five oversight trips will be made; none occurred during the base period (BP). Each trip will require one PRC staff person to work two 8-hour days. Using these assumptions, PRC estimates the time spent in the field will be 80 LOE hours. In addition, PRC estimates that 17 LOE hours per trip (for a total of 85 LOE hours) will be required to prepare for the trip, participate in conference calls during the field oversight, prepare trip reports, provide EPA with periodic updates during field activities, and travel. The total time required to complete this task is estimated to be 165 LOE hours.

The SOW indicates that four trips to Akron/Canton, Ohio, should originate from Cincinnati, Ohio, and that one trip should originate from Chicago, Illinois. At the time of this cost estimate's preparation, round-trip airfare was cheaper from Chicago ($219, midweek, 7-day advance) than from Cincinnati ($344, midweek, 7-day advance). As a result, all trips are planned to originate from Chicago. This was also the case for the BP; however, only three trips were budgeted in the approved work plan because only three were expected to occur during the BP. Because no travel occurred during the BP, the OP 1 travel estimate is higher.

ODCs associated with field oversight include $1.80 per hour of field time for Level D field equipment. Level D field equipment includes personal protective equipment (PPE) such as Tyvek suits, rubber overboots, hardhats, goggles, and gloves. ODCs listed in Table A-3 as equipment costs include field logbooks, single-use cameras, and film development.

Task 3 -- Review Draft and Final Corrective Measures Implementation (CMI) Work Plans

For Task 3, the LOE hours estimated for this task are identical to those presented in the approved work plan because no activity occurred on this task during the BP. The total time required to complete this task is estimated to be 100 LOE hours.

Task 4 -- Review Draft and Final CMI Reports

For Task 4, the LOE hours estimated for this task are identical to those presented in the approved work plan because no activity occurred on this task during the BP. The total time required to complete this task is estimated to be 75 LOE hours.

Task 5 -- Review Interim Measures (IM) Work Plans and Reports

For Task 5, PRC assumes that two IM work plans and one draft IM report will be reviewed during OP 1; one draft IM report and one final IM report were reviewed during the BP. Based on the LOE hours expended on review of the draft and final IM reports, PRC estimates that 50 LOE hours will be required for each OP 1 document review. Thus, the OP 1 estimate is higher than the BP estimate. The total time required to complete this task is estimated to be 150 LOE hours.

Task 6 -- Conduct Project Close-out

PRC does not anticipate completion of this work assignment before the end of OP 1 on September 30, 1996; therefore, no project close-out costs have been estimated.

TABLE 1

REVISED COST ESTIMATE
Work Assignment No. R05034
(Effective Date: December 23, 1994)

HOURS	ESTIMATED BP COST[a]	AMENDMENT NO. 2	TOTAL
P-Level			
P4	47	185	232
P3	4	39	43
P2	31	199	230
P1	1	73	74
T3	0	6	6
T2	1	0	1
T1	0	0	0
Total Professional Hours	84.0	502	586.0
Total Clerical Hours	3.0	49	52.0
Total Hours	87.0	551	638.0
DOLLARS			
Direct Professional Labor	$2,128	$12,673	$14,801
Direct Clerical Labor	45	606	651
Travel	0	2,405	2,405
PRC ODCs	134	1,543	1,677
Subcontractor Costs	0	0	0
Indirect Costs	1,878	11,650	13,528
Subtotal Cost	$4,185	$28,877	$33,062
Base Fee	$118	$746	$864
Total Cost	**$4,303**	**$29,623**	**$33,926**

[a] Estimated BP costs are costs invoiced through December 30, 1994. Final BP costs will be provided to EPA under separate cover.

[b] The total work assignment cost includes the estimated BP costs and the costs estimated for this amendment.

CONFIDENTIAL BUSINESS INFORMATION

TABLE A–1

WORK ASSIGNMENT REVISED COST ESTIMATE

SITE NAME: Ekco Housewares, Inc. WORK ASSIGNMENT NO. R05034

TASK NAME	Prepare Revised Cost Est.	Perform Field Oversight	Review CMI Work Plans	Review CMI Reports	Review IM Work Plans and Reports	Conduct Project Close–out					
TASK NUMBER	TASK 1	TASK 2	TASK 3	TASK 4	TASK 5	TASK 6	TASK 7	TASK 8	TASK 9	TASK 10	TOTAL
Labor Cost	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	
PRC LABOR ESTIMATE											
P4	0	29	28	18	110	0	0	0	0	0	185
P3	0	17	6	6	10	0	0	0	0	0	39
P2	12	81	40	36	30	0	0	0	0	0	199
P1	0	32	26	15	0	0	0	0	0	0	73
T3	0	6	0	0	0	0	0	0	0	0	6
T2	0	0	0	0	0	0	0	0	0	0	0
T1	0	0	0	0	0	0	0	0	0	0	0
Clerical	1	20	8	8	12	0	0	0	0	0	49
TEAM SUB LABOR ESTIMATE											
Professional Hours											0
Clerical Hours											0
Total Professional Hours	12	165	100	75	150	0	0	0	0	0	502
Total Clerical Hours	1	20	8	8	12	0	0	0	0	0	49
Total PRC Professional Labor Cost	$220	$3,514	$2,302	$1,695	$4,943	$0	$0	$0	$0	$0	$12,673
Total PRC Clerical Labor Cost	$12	$247	$99	$99	$148	$0	$0	$0	$0	$0	$606
1. Total PRC Labor Cost	$233	$3,761	$2,401	$1,794	$5,091	$0	$0	$0	$0	$0	$13,279
2. Total PRC Travel Cost (1)	$0	$2,405	$0	$0	$0	$0	$0	$0	$0	$0	$2,405
3. Total PRC ODCs (2)	$50	$989	$149	$177	$179	$0	$0	$0	$0	$0	$1,543
4. Team Sub Costs											$0
5. Non–Team Sub Cost (3)											$0
6. Indirect Costs (4)	$203	$3,427	$2,075	$1,554	$4,392	$0	$0	$0	$0	$0	$11,650
Subtotal Cost	$485	$10,582	$4,624	$3,524	$9,662	$0	$0	$0	$0	$0	$28,877
Base Fee	$18	$245	$149	$111	$223	$0	$0	$0	$0	$0	$746
TOTAL COST	$503	$10,827	$4,773	$3,636	$9,884	$0	$0	$0	$0	$0	$29,623

Notes:

(1) See Table A–2 for PRC travel costs.
(2) See Table A–3 for PRC ODCs.
(3) Non–team subcontractors include expert witnesses, expert consultants, surveying and drilling firms, and so on.
(4) Indirect costs include fringe benefit, overhead, and general administration costs.

CONFIDENTIAL BUSINESS INFORMATION

TABLE 2
PROPOSED STAFFING PLAN

STAFF	P-LEVEL	Prepare Revised Cost Est. TASK 1 HR	Perform Field Oversight TASK 2 HR	Review CMI Work Plans TASK 3 HR	Review CMI Reports TASK 4 HR	Review IM Work Plans and Reports TASK 5 HR	Conduct Project Close-out TASK 6 HR	TASK 7 HR	TASK 8 HR	TASK 9 HR	TASK 10 HR	TOTAL
Sr. Engineer or Scientist	P4		12	8	8	25						53
Manoj Mishra	P4		17	20	10	85						132
	P4											0
	P4											0
TOTAL P4 HOURS		0	29	28	18	110	0	0	0	0	0	185
Environmental Scientist	P3		17	6	6	10						39
	P3											0
	P3											0
	P3											0
TOTAL P3 HOURS		0	17	6	6	10	0	0	0	0	0	39
Jeff Swano	P2	8	55	34	34	12						143
Support Staff	P2	2	10	2	2	10						26
Environmental Scientist	P2	2	16	4		8						30
	P2											0
TOTAL P2 HOURS		12	81	40	36	30	0	0	0	0	0	199
Jennifer Force	P1		32	26	15							73
	P1											0
	P1											0
	P1											0
TOTAL P1 HOURS		0	32	26	15	0	0	0	0	0	0	73
Co-op Student	T3		6									6
	T3											0
TOTAL T3 HOURS		0	6	0	0	0	0	0	0	0	0	6
	T2											0
	T2											0
TOTAL T2 HOURS		0	0	0	0	0	0	0	0	0	0	0
TOTAL LOE HOURS		12	165	100	75	150	0	0	0	0	0	502
TOTAL CLERICAL HOURS		1	20	8	8	12						49
TOTAL HOURS		13	185	108	83	162	0	0	0	0	0	551

CONFIDENTIAL BUSINESS INFORMATION

TABLE A–2
PRC TRAVEL PLAN

Origin/Destination	Purpose	Task No.	No.of People	No.of Trips Per Person	No.of Days Per Person Per Trip	Round Trip Airfare ($/trip/person)	Per Diem ($/day/person)	Ground Trans/Misc ($/day)	Est. Total Cost ($)
		1							$0
		1							$0
		1							$0
Total Travel For Task No. 1									$0
Chicago, IL/Canton, OH	Field Oversight	2	1	5	2	$219	$76	$55	$2,405
		2							$0
		2							$0
Total Travel For Task No. 2									$2,405
		3							$0
		3							$0
		3							$0
Total Travel For Task No. 3									$0
		4							$0
		4							$0
		4							$0
Total Travel For Task No. 4									$0
		5							$0
		5							$0
		5							$0
Total Travel For Task No. 5									$0
		6							$0
		6							$0
		6							$0
Total Travel For Task No. 6									$0
		7							$0
		7							$0
		7							$0
Total Travel For Task No. 7									$0
		8							$0
		8							$0
		8							$0
Total Travel For Task No. 8									$0
		9							$0
		9							$0
		9							$0
Total Travel For Task No. 9									$0
TOTAL TRAVEL									**$2,405**

Notes:

(1) The PRC team is required to follow the requirements of Subpart 31.2 of the Federal Acquisition Regulations (FAR) and federal travel regulations in incurring allowable travel costs under this contract and correspondingly must at all times seek and obtain the lowest rates, including government rates (when available), and observe subsistence ceilings.

(2) Per diem is based on rates for lodging, meals, and incidental expenses stated in FAR 31.205–46(a)(3).

(3) Ground transportation assumes $55 per day for car rental plus miscellaneous expenses for gas, parking, and tolls or $0.26 per mile if a personal car is used.

TABLE A–3
OTHER DIRECT COSTS

Item	Unit Cost	TASK 1 Prepare Revised Cost Estimate		TASK 2 Perform Field Oversight		TASK 3 Review CMI Work Plans		TASK 4 Review CMI Reports		TASK 5 Review IM Work Plans and Reports	
		No. of Units	Cost	No. of Units	Cost	No. of Units	Cost	No. of Units	Cost	No. of Units	Cost
Freight	$10.00		$0	5	$50	2	$20	1	$10	5	$50
Computer	$3.60	10	$36	38	$137	15	$54	35	$126	15	$54
Telephone	$5.00	2	$10	25	$125	10	$50	5	$25	10	$50
Copying	$0.05	70	$4	360	$18	500	$25	320	$16	500	$25
Shipping	$75.00		$0	5	$375		$0		$0		$0
Safety	$1.80		$0	80	$144		$0		$0		$0
Equipment	$28.00		$0	5	$140		$0		$0		$0
Laboratory			$0		$0		$0		$0		$0
Other			$0		$0		$0		$0		$0
Total			$50		$989		$149		$177		$179

Item	Unit Cost	TASK 6 Conduct Project Close–out		TASK 7		TASK 8		TASK 9		TASK 10	
		No. of Units	Cost	No. of Units	Cost	No. of Units	Cost	No. of Units	Cost	No. of Units	Cost
Freight	$10.00		$0		$0		$0		$0		$0
Computer	$3.60		$0		$0		$0		$0		$0
Telephone	$5.00		$0		$0		$0		$0		$0
Copying	$0.05		$0		$0		$0		$0		$0
Shipping	$75.00		$0		$0		$0		$0		$0
Safety	$1.80		$0		$0		$0		$0		$0
Equipment			$0		$0		$0		$0		$0
Laboratory			$0		$0		$0		$0		$0
Other			$0		$0		$0		$0		$0
Total			$0		$0		$0		$0		$0

September 30, 1991

Ms. Sally Averill
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X, R05031 - EKCO Housewares RFI
Field Activities Report: 9/17/91 - 9/19/91

Dear Ms. Averill:

Enclosed please find one copy of the field notes for the RFI/CMS oversight at the ECKO Housewares site in Massillion, Ohio for September 17 through September 19, 1991.

If you have any questions, please feel free to contact me at (312) 553-1400.

Sincerely,

METCALF & EDDY, INC

Thomas Lentzen
Regional Project Manager

Enclosure

cc: Fred Norling
File

TESX, 208 South LaSalle, Suite 1733, Chicago, IL 60604
TEL: (312) 553-1400—FAX: (312) 553-1406

AWT Affiliates of Air & Water Technologies Corporation

September 27, 1991

Ms. Sally Averill
U.S. Environmental Protection Agency
Region V (5HR-12)
230 South Dearborn Street
Chicago, Illinois 60604

RE: TES X Work Assignment NO. R05031
EKCO Housewares RFI/CMS Oversite
Field Activities Report: 9-17-91 through 9-19-91

Dear Ms. Averill:

Enclosed is one copy of the field notes for the RFI/CMS oversight at the EKCO Housewares Site in Massillon, Ohio for the three day period of September 17, 1991 through September 19, 1991.

Personnel on-site during this three day period were Tom Cornuet, Dave Caruns, and Harold Byer of Roy F. Weston, Alan Hay, Dave Screcangost and Bill Young of Bowser Morner, and Jim Strayton and Steve Hulett of Metcalf & Eddy.

Activities by EKCO during the three day period consisted of ground water sampling, set-up for pump testing, and soil borings and sampling.

Per your instructions Metcalf & Eddy focused oversite activities on soil boring and sampling. Therefore, ground water sampling and pump test preparation were not observed.

All borings were completed using a Detrich D-25 skid rig, 3 1/4 hollow stem auger, and a two inch split-spoon sampler. All borings were sampled continuously to depth using the split-spoon and were screened for contamination using a HNu photo ionization detector. All analytical samples collected were sent to a laboratory for analysis of volatile organic compounds only.

On September 17, 1991, Bowser Morner and Weston personnel completed soil boring numbers SB-1 through SB-6. See Figure 1, for approximate locations. Soil boring numbers SB-1, SB-2, and SB-4 were completed to 12 feet, as specified in the RMI/CMS Work Plan. Soil boring numbers SB-3, SB-5 and SB-6 were completed to 7 feet, 6 feet, and 8 feet, respectively. Soil boring SB-3 was terminated due to auger refusal, and SB-5 and SB-6 were terminated upon encountering water.

On September 18, 1991, soil boring numbers SB-9, SB-10, and SB-11 were completed within the EKCO Housewares building. Total depth for each boring

2800 Corporate Exchange Drive, Suite 250, Columbus, OH 43231
Telephone: 614 890-5501—FAX: 614 890-7421

was 12 feet, 10 feet, and 12 feet respectively. Soil boring SB-10 was terminated due to auger refusal.
On September 19, 1991, soil borings SB-7 and SB-8 were completed to a depth of 8 feet and 12 feet, respectively. Soil boring SB-8 was terminated due to auger refusal. All borings were backfilled with cuttings and grouted to the surface.

The highest levels of contamination detected with the HNu during bore hole screening occurred at soil boring locations SB-6, and SB-10. Detection levels of 20 + ppm were detected from 6 to 8 feet below grade in soil boring number SB-6. Soil boring SB-6 is located approximately 40 feet northwest of a large above ground storage tank containing TCE. Although the tank is presently surrounded by a concrete containment wall, the contamination may be due to past spillage. Detection levels of 20 + ppm were also detected from 8 to 10 feet below grade in soil boring SB-10. Soil boring SB-10 is located within the EKCO Housewares building. Weston personnel stated that the area surrounding soil boring SB-10 had been the site of a degreasing operation. All other boring locations showed relatively little contamination during screening with the HNu. Please refer to attached Table 1 for boring number, boring depth, sampling interval, and highest contamination levels detected within each boring.

The EKCO Housewares RFI/CMS Work Plan proposed 13 soil borings. Weston personnel were unable to complete two of the borings. Figure 1 shows the location of these uncompleted borings. Boring number UC-SC-A was to be located on the southwest side of the EKCO Housewares building. The boring was located directly under low powerlines, therefore completion of UC-SB-A would have jeopardized the health and safety of personnel on-site. Proposed soil boring UC-SB-B was to be located within the EKCO Housewares building, west of soil borings SB-10 and SB-9. Boring numbers SB-10 and SB-9 were both completed in a very narrow hall that did not leave room to install UC-SB-B.

The sampling and field procedures employed by the PRP's Consultant, as observed by Metcalf & Eddy, Inc., were consistent with U.S. EPA approved plans and protocols. If you have any questions or comments, please call me at (614) 890-5501.

Sincerely,

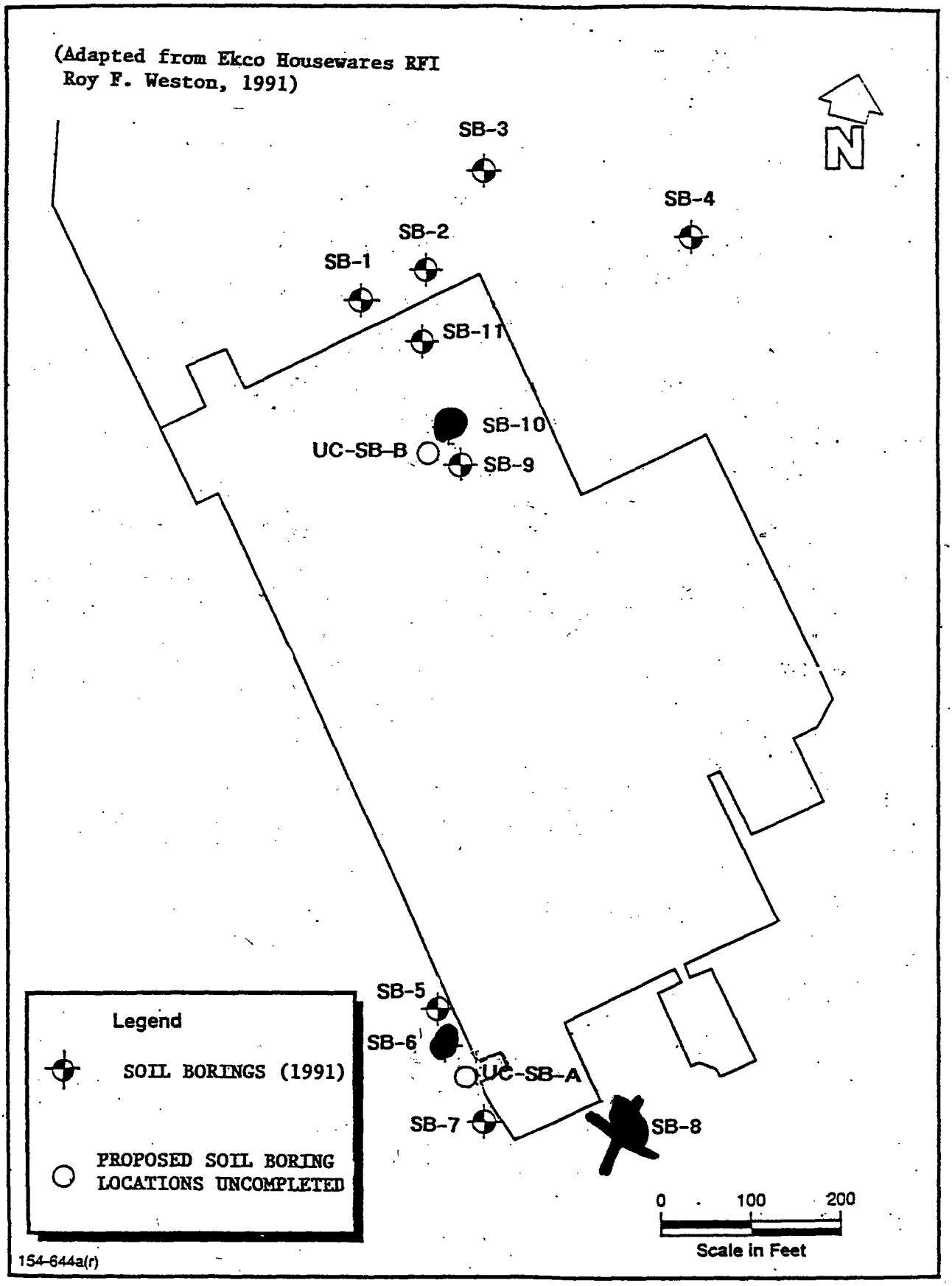
Metcalf & Eddy, Inc.

Steve A. Hulett
Contractor Project Manager

SAH/sac

Attachments

cc: TES X File



RFI SOIL BORING LOCATIONS (SEPTEMBER 1991)

Figure 1

TABLE 1

ECKO HOUSEWARES RFI SOIL BORINGS

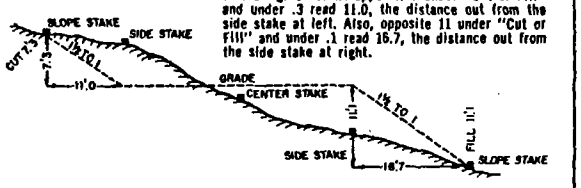
(September 1991)

Date	Boring No.	Total Depth	VOA Sample Interval	Highest HNu Reading
9/17/91	SB-1	12 feet	2-4', 6-8', 10-12'	5.4 ppm 8-10'
	SB-2	12 feet	2-4', 6-8', 10-12'	0 ppm
	SB-3	7 feet	2-4', 6-8'	0 ppm
	SB-4	12 feet	2-4', 6-8', 10-12'	0.5 ppm 0-2'
	SB-5	6 feet	2-4', 4-6'	3.0 ppm 4-6'
	SB-6	8 feet	6-8'	20+ ppm 6-8'
9/18/91	SB-9	12 feet	2-4', 6-8', 10-12'	0.0 ppm
	SB-10	10 feet	0-2', 6-8', 8-10'	20+ ppm 8-10'
	SB-11	12 feet	2-4' 6-8', 10-12'	0.2 ppm 2-4', 8-10'
9/19/91	SB-7	6.3 feet	2-4', 6-8'	0.2 ppm 0-2'
	SB-8	12 feet	2-4', 6-8', 10-12'	0.0 ppm

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
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23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
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39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

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Log Book # 114

EKCO

Metcalf & Eddy, Inc.
2800 Corporate Exch. Dr.
Columbus, OH 43231

(614) - 890-5501

9-17-91

0800 M&E arrive onsite

Dave Carver
Andy

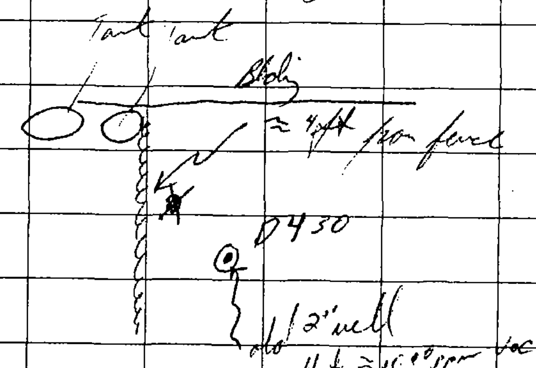
Pump stuck in R well
yesterday. R4 well.

Weather: Clear, ≈65°F

Personnel onsite
Stan Hulett - M&E
Jim Strayton - "
Dave Schoonzost - BM
Alan Hay - "
Bill Young - "
Tom Cornmut - Weston
Butch - "

Steve A Hulett 9-17-91

0830 Weston preparing to start first soil boring.



Clay Dietrich D25 Skid rig
Bowser Morner drilling.
3" ID Auger 2" SS
sampling at 2-4 ft 6-8 ft
10-12 ft or at ↑ HNU reading.

Steve A Hulett
9-17-91

0845 Weston calibrate HNU.

0855 BM starts sampling 1st spoon.

SB-1

0900 0-2 ft 12" recovery .2 PPM
8" dark brown - black organic top soil. rich blond sand, 3 in dark black silty soil some brick - red, prob. fill material

[signature]
9-17-91

0905
2-4 ft 12 in recovery 1.2 ppm
4" dark brown to black silty sand, remainder red brown silty sandy clay fill material
VOA samples taken 2-4 oz Jars.

0910
4-6 ft 12 in recovery, 1.0 ppm
Same fill material.

0922
6-8 ft. 2" recovery 4 ppm OVA
Lt. Brown sandy clay silt, prob. natural
More clay than prev.
VOA samples taken

[signature]
9-17-91

5

0930
8-10 ft full recov. 7 ppm OVA
12" lt brown silty clay
3" dark black silty clay
remainder - gray brown
silty clay, more clay -
lower spoon.

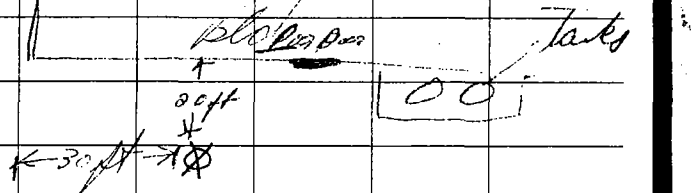
10 to 12 ft 12" recov, 5.4 ppm
8" lt brown gray silty
clay. 4" red gray silty
clay Fe2 stain.
VOA Sample taken

Boring complete BM pulled
augers.

Steve Hewitt
9-17-91

6

Boring #2



0-2 ft 16" recov 0.0 PPM
Course fill, limestone
soil, cinders

2-4 12" recov 0.0 PPM
Black soil, cinders, L.S
fill material
VOA Sample collected.

Steve Hewitt
9-17-91

1025 4-6 ft. 16" recov 0.0ppm
Dark black sandy
fill, some small
gravel,

1035 6-8 ft 8" recov 0.0ppm
Dark gray silty clay.
VOA sample taken

1040 8-10 ft 12" recov 0.0ppm
Lt Brown sandy silty
clay, some gravel, FeOx
staining,

[signature]
9-17-91

1045 10-12 ft 4.5" recov 0.0ppm
Lt Brown sandy silty
clay.
VOA sample taken.

1055 Boring complete

SB-#3 Bldg
≈100 ft.

0-2 ft 16" recov 0.0ppm
Gravel fill, some cinders

11:35
2-4 ft 6" recov 0.0ppm
gravel fill some cinders
VOA samples taken

[signature]
9-17-91

4-6 12" recov, 0.5spoon dark brown to black silt, some sandstone pebbles.

6-8 Refusal at 7 ft. 3" recov, dk brown clay. Voa sample taken.

1150 BM augered down to 7 feet and will try to pond another spoon. Driller says he has refusal from augers. also.

Steven O'Neill
9-17-91

1155 BM tried to pond another spoon and still has refusal. Boring complete at 7 ft.

1205 BM, M&E, W. go to lunch, will take a long lunch as driller can find a room.

1340 M&E arrive back onsite Weston not onsite

Steven O'Neill
9-17-91

11

1420 Weston returns to BM

1435 Weston, BM start to mob to SB-4

1443 BM prepare to take spoon.

SB-4

1450 0-2 ft 12" recov 0.5 ppm
6 inch cinders, black coarse grained, 6" gravel with lt. brown silty clay. "fill".

Stuart Hunt
9-17-91

12

2-4 ft 6" recov 0% 0.0 ppm
Fill sample taken

4-6 ft 16" recov 0.0 ppm
cinder fill

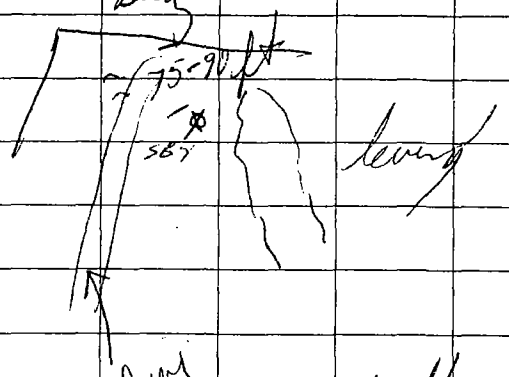
6-8 ft full recov 0.0 ppm
dark gray brown cinder fill, some silty clay
VOA Sample Collected

8-10 full recov
Black to Brown clay cinders. "fill"

Stuart Hunt
9-17-91

10-12 ft full way 0.0 PPM
4" thinly pill, remainder
dark gray to brown silty
sandy clay.
VOA sample collected.

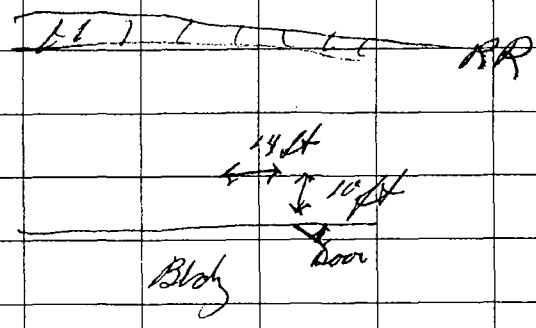
SB-4



Stan A Smith
9-17-91

1525 Boring SB-4 complete
BM pull augers +
prepare to decon.

1600 BM + Weston set up on
SB-5



Stan A Smith
9-17-91

1600 Weston + BM personnel call BM office to try and get a keyless key to pull the pump out of well #R-4

1620 BM starts pounding 1st spoon at SB-5

1630 0-2 ft. 16 in recov. 0.0 ppm
gravelly, cinder fill

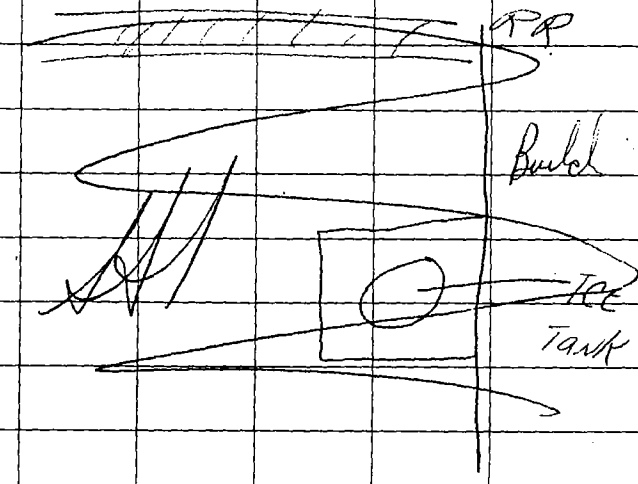
1636 2-4 ft 16" recov 0.0 ppm
clay sandy silt, dark gray to lt. Brown. VOA collected
Steve Talbot 7-12-91

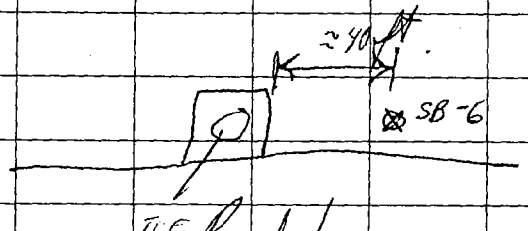
4-6 ft 5 ft 9 in to refusal 3 ppm
14 in recov,
6 in gray brown sandy clay, remainder Fe-Oz rock sand, med grained, moist
VOA sample taken due to high HNU reading

6-8 ft refusal at 1 inch
1 ft recov cobble shale or siltstone, wet.

1700 SB-5 complete, BM moving rig & prepping for SB-6
Steve Talbot 7-12-91

17





Stan A Smith
9-17-91

18

SB-6

1715 0-2 ft 12 in recovery 0 ppm
Sandy gravel fill
tan to dark gray.

1720 2-4 ft 0 recovery.

1722 4-6 ft 0 recovery

BM pulls auger to
begin next probe. No pieces
of tile ect so BM
well continues.

Stan A Smith
9-17-91

1740 6-8 ft 12" recovery 20+ ppm HNU
4½ coarse grained well sorted well rounded sand, remainder gray shelby clay. Very wet, stop boring at W.T.

1800 M&E clean site Weston clean up drill rig at 0730

End of Day Report

Weston personnel are doing groundwater sample.

Steve A Hewlett
9-17-91

as well as soil borings. M&E personnel is observing borings per Sally Averit - USEPA instructions. Weston personnel have completed 5 borings 2 through 5B-6. The first 3 borings being on the North side of the building, #4 in the field by the levee and the last two on the south side of the building. Weston could not complete 5B-7 due to a TCE tank and power lines.

Steve Hewlett
9-18-91

9-18-91

0725 M&E arrives onsite
Weston personnel
not onsite.

0735 BM personnel arrive
onsite

Weather: Cloudy and 68°F.

Personnel onsite

Dave Schreckengost → BM
Alan Hay - BM
Bill Young - BM
Tom - Weston
Butch - "
Steve Hulett - M&E Steve Hulett 9-18-91

0745 Weston personnel
arrive onsite. Weston
will do borings in
the building today.

0815 Butch and remainder
of BM personnel arrive
onsite.

0830 Weston & BM discussing
and preparing to do
borings.

0840 BM takes rig into
building.

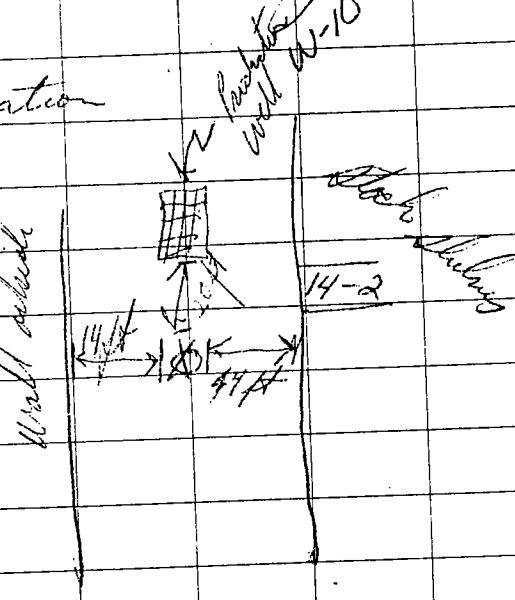
Steve Hulett
9-18-91

21

23

0915 Weston + BM move rig into trailer.

Location



0920 BM & Weston have trouble setting up rig, lights too low.

Steve Hulett
9-18-91

24

0930 BM has taken wheels off of top of rig.

0945 BM has set up rig but are getting a jack to take wheels off of rig for stability.

1000 BM starts rig through the concrete.

1017 BM completes coring through the floor. 6 inches of concrete.

Steve Hulett
9-18-91

SB-9 7½ hours to date

1020 0-2ft full recovy 0.0 Hnu
Brown, silty clayy, gravel
fill. first 6 in cored
concrete.

2-4ft full recovy 0.0 Hnu
Same (Sampled)

4-6 full recovy 0.0 Hnu
Same

1050 6-8ft 15 in recovy, 0.0ppm
Gray silty clay.
Sample collected

Stan A Shubert
9-18-91

1055 8-10ft 20 in recovy 0.0ppm
4 in gray silty clay, 6"
med grained tan
sand, 10 in dense
gray elastic clay.

1105 10-12ft 20in recovy 0.0ppm
12 inch gray dense
to stiff elastic clay, remainder
dark gray to black
silty clay, Sampled

BM will throw cuttg back
in the hole since we
had no hits and grout
to the surface

Stan A Shubert
9-18-91

1115 Borg complete, BM will grout hole, Move rig to SB-10 and go to lunch, will meet back at ≈1300 to 1315.

1250 M+C returns to site + will go and look for Weston + BM.

1315 Weston + BM can't be found.

1330 Weston + BM still not onsite

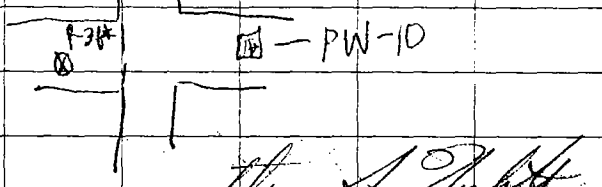
Steve Hubbell
9-18-91

1334 Weston returns to site - we are waiting on the drillers.

1335 BM onsite, M+C, Weston head for Borg site.

1340 Grout at SB-10 6 inches of concrete has been cored.

~~0-2 feet~~ 6 inches concrete,



Steve Hubbell
9-18-91

SW-10

1348 0-2 ft full recovery 6ppm
6" concrete, silty sandy
gravelly clay fill
Sample taken.

1350 2-4 ft full recovery, 0.0ppm
Same fill material ↓
Sampled 0-2 feet so HNU is acting
not sampled 2-4 feet. up so may
be questionable

1400 4-6 feet No recovery.

Stan Schlatt
9-18-91

1410 6-8 ft 6" recovery 40ppm
Dark brown sandy
silty clay. Sample
taken.

1430 8-10 ft 8" recovery +20ppm
Split spoon very bent,
very hard to remove.
Dark brown to black
sandy clayey. "Sample taken"
S.S. cobble in end of
spoon.

1434 BM thinks he's on
rock so is pulling
augers.

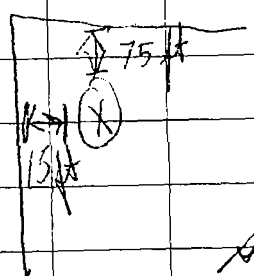
Stan Schlatt
9-18-91

boring complete. Will grout hole and move to next location.

1500 Weston & BM decon & preparing to go to the next boring SB-11

1530 M&E and Weston heading back to boring.

SB-11



[signature] 9-18-91

1535 BM start pushing 1st spoon after coring through ≈8 in concrete

SB-11

1545 0-2 ft full recovery 0.0 PPM
8" concrete, remainder silty, clay, sandy, gravel "fill". Very stiff.

~~2-4 ft~~ [illegible] ft

1550 BM having trouble drilling, auger shifted to ≈60° angle. tried to straighten up but failed.

[signature] 9-18-91

1553 BM got augers started & proceeding.

1554 2-4 ft 12" recov, .2ppm
Sand fill
Sample taken with
MS MSD sample

1604 4-6 ft 12" recov, 0.0ppm
Dark brown silty clay,
soft and plastic.

1615 6-8 12" recov 0.0ppm
Dark brown silty clay
soft & plastic
Sample taken
Steve O'Hanlon 9-18-91

1617 8-10 12" recov .2ppm
Sand clay.

1620 10-12 full recov 0.0ppm
Dark gray to black
plastic clay.
Sample taken

1623 Bailers pulls augers

Will pump test I-13
10 gal min no drawdown
got 50 gal min to try
to draw down.
50 gal/min got 2-800 gal
will be able to pump 2-6ers
Steve O'Hanlon 9-18-91

I 11. (W 57 I-2) should be no prob with these thru

1700 M&E offsite to call Sally

Tried to call Sally Arrival - USEPA, couldn't get through will call in AM

End of Day

Weston continued to sample wells and do borings. Weston completed 3 borings

Steve Hulett 9-15-91

today inside the building. Two borings were completed around P-10 and one on the North side of the building. The WP calls for 3 borings around P-10 but there was not enough room. ERM will start setting up for a pump test in the A.M. at I-13. Will bring in two 8000 gal tankers and will pump at 5 gal a min. Will only allow test to go for ~~2~~ 6 hrs.

Steve Hulett 9-15-91

WP says will pump
for 8 hrs. I tried
to call Sally Averil -
US-EPA and couldn't
reach her, so will
call in AM to update
& get direction. Boring
should be complete
by tomorrow.

Steve S. Smith

~~Stt~~ SH 9-18-91

9-19-91

0730 M&E arrives onsite

0733 BM arrives onsite, Weston not onsite.

Temp: 52°F, cloudy

0800 Weston still not arrived.

0804 Weston arrives onsite.

Tom said they checked the pump last night and they are pumping ≅30 gal/min. They had plenty of drawdown so they should be able to do the 8 hr.

Steve Hulett 9-19-91

pump test and have plenty of ~~time~~ on container volume.

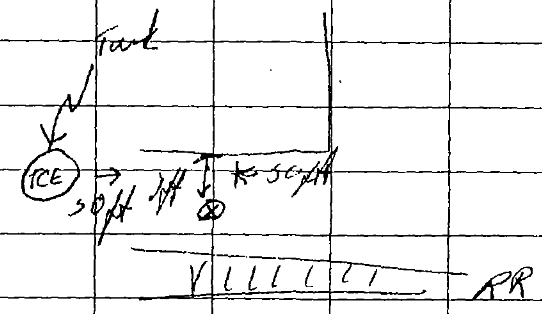
0820 D&M and BM start to mob.

0847 BM c Weston head for next boring.

0901 BM arrives at SB-7

Steve Hulett 9-19-91

SB-7 Location



SB-7 .2 ppm

0910 0-2 ft 12" recovery
6" Black silty cindery gravely clay. 6" Dark gray sandy silty clay. fill "Sampled" due to color and .2 ppm hit.

[signature]
9-19-91

0922 2-4 ft 12" recovery 0.0 ppm
Cinder gravel, dark gray to black, Limestone gravel "Fill"

0925 4-6 ft 16 in recovery 0.0 ppm
6" L.S. gravel "Sand", remainder dark brown silty sandy clay. last 1" weathered shale.

0942 6-8 ft Refusal at 6 ft 8"
4" recovery, dark brown weathered clay shale.

BM will pull augers

[signature]
9-19-91

& stop boring due to refusal.

10:00 Called Sally Averil - USEPA. Told her that one of the borings inside the building could not be completed. We have a boring N and one S of W-10 but couldn't get one to the west of W-10. Also told her we had a 20+ ppm hit at the water table at SB-6. She said they may want a cluster well there. Sally told me

Stuart [signature] 9-19-91

to stick around and see the last boring and then to leave. I told her I will call her back later on.

1030 BM coring through concrete at SB-8 0-12"

SB-8

1045 0-2.5 ft

1 ft concrete, spooned 1 ft to 2.5 hard brown clay

Stuart [signature] 9-19-91

1100 auger to 2.5 ft and
with auger refusal.
prob. bolder

but spoon refusal at 2 ft.
piece of slag in spoon.

1105 BM will move the
boring 5 ft to the east
& reabore and start
a new boring.

SB-8b

0-2 ft 8 in recovery 0.0 ppm
1 ft asphalt & gravel
4 in cinder asphalt fill in well

[signature] 9-19-91

sorted brown sand 3 in
dark brown silty clay

~~2 ft~~

1115 2-4 ft full recovery, 0.0 ppm
Dark brown clay trace
of fine sand.
sample collected

1120 4-6 ft 14 in recovery 0.0 ppm
6 in dark brown clay,
remainder clayey sand, some
gravel, FeO_2 staining, some
yellow staining red yellow
silty sandy clay.

[signature] 9-19-91

1127 6-8 ft 3 in recov
red brown clay, some
silt (Sampled)

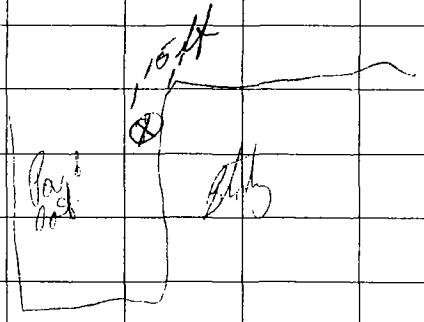
1130 8-10 ft HNu 0.0 ppm
SS wet 6" recov,
3 inches brown clay, 3" silty
sandy gravel, red FeO_2
color, well rounded,
.25 - diameter

1138 10-12 8 in recov
3 in brown clay prob sluff.
1 shell cobble ≈ .15 - diameter
remainder sandy silty
clay gravel, red brown.
Stuart Sublett 9-19-91

Sample collected.

1140 BM drill auger & prepare
to grout hole.

1210 SB-8 grouted
M&E preparing to
clean site.



9-19-91 Stuart Sublett

End of Day

Weston completed borings
number SB-7 and
SB-8. Talked to
Sally Angel and
she said head home
after borings were
complete. Tom
checked the pump
rate on the pump
Weston will use to
do the planned
aquifer test. The
pump rate is ~30 gal/min
with 16000 gal
capacity, an
[signature] 9-19-91

8 hr pump test
should be no
prob.

[signature]

9-19-91

July 16, 1991

Ms. Sally Averill
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X, R05031 - EKCO Housewares RFI
Field Activities Summary

Dear Ms. Averill:

Enclosed please find one copy of the field notes from June 17 through June 27, 1991 and July 9 through July 10, 1991 oversight activities at the EKCO Housewares site.

If you have any questions, please feel free to contact me at (312) 553-1400.

Sincerely,

METCALF & EDDY, INC

Thomas Lentzen
Regional Project Manager

Enclosure

cc: Fred Norling
File

TESX, 111 W. Jackson Blvd., 15th Floor, Chicago, IL 60604
TEL: (312) 427-7433—FAX: (312) 427-3283

Metcalf & Eddy

July 11, 1991

Ms. Sally Averill
U.S. EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X Work Assignment No. RO5031
EKCO Housewares RFI Oversight
Field Activities Summary: 6/25-6/27/91 & 7/9-7/10/91

Dear Ms. Averill:

Enclosed is one copy of the field notes for the field oversight of activities conducted at the EKCO Housewares Site in Massillon, Ohio on the above indicated dates. In addition to myself, personnel on site included Pat Doran, David Cairns, and Harold Byer, Jr. of Roy F. Weston, Inc., and Dave Schrecengost and William Kessler of Bowser Morner.

Activities observed included the cable tool drilling of Interface W I-11 and the cable tool drilling and installation of Rock Well R-12. Well I-11 is located on the Carter Lumber property and Well R-12 is located on the Price Brothers property. David Cairns of Weston informed me that Well I-11 was set at 168'. Well R-12 has a total depth of 108.5 feet. It has a twenty-foot screen with an installed sand pack to 85.5 feet. A three-foot bentonite seal is above the sand pack and a neat grout mixture is above the bentonite seal. Bedrock was encountered at 65'. The 8-inch casing was left in the hole to ensure that the upper zone of water is cased off.

Planned activities for the balance of the month of July are installation of the remaining wells on the Price Brothers property. Development of the wells is also planned. To date, none of the wells have been developed.

If you have any questions regarding this report, please call me or James Strayton at (614) 890-5501.

Sincerely,

Andrew Campbell
Environmental Scientist

Enclosures

cc: T. Lentzen w/enclosures
J. Strayton w/enclosures
TES X File w/enclosures

2800 Corporate Exchange Drive, Suite 250, Columbus, OH 43231
Telephone: 614 890-5501 — FAX: 614 890-7421

102 6/25/91 6/25/91 103

1000 Arrival - Clear, sunny will be hot - upper 80's

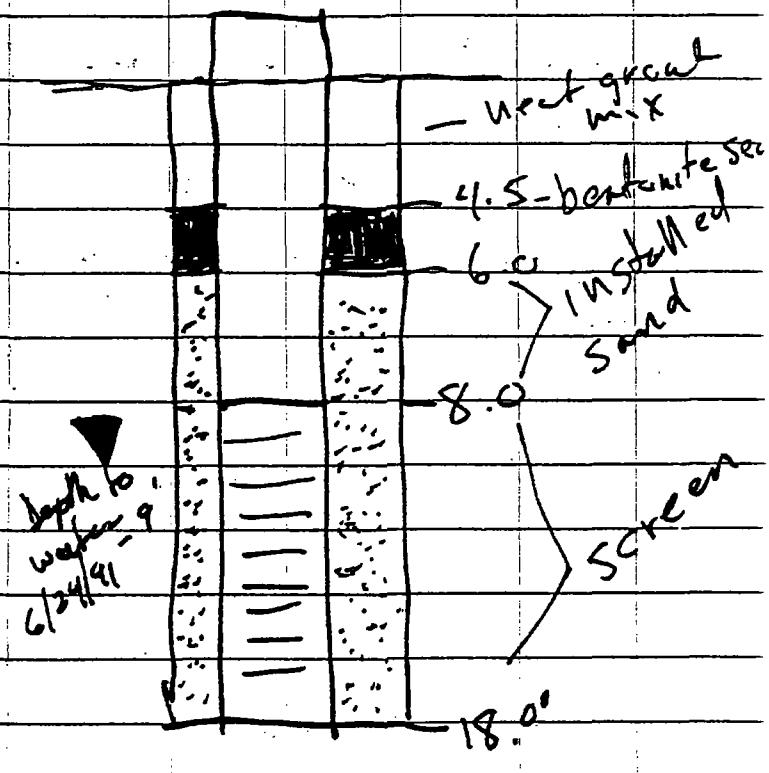
Personnel

A. Capbell	M&E
P. Doran	Weston
D. Schrocengost	B/M
B. Kessler	B/M

1020 Rig set up at I-11

1030 25-27 spoon silt & sand some gravel - wet

Diagram of S-11 installed 6/24/91



Andrew Capbell 6/25/91

Andrew Capbell 6/26/91

6/25/91.

1040 Driving casing at I-11 (cocked approx. 8' from S-11. - P. Doran informs me that they encountered some fill material in the first few feet while drilling these wells

1110 Split spoon from 30'-32' - large gravel/cobbles - some sand/silt welding next piece of casing on

Andrew Luptak 6/25/91

6/25/91

1130 Driving Casing down to approximately 35'

1200 Lunch

1245 Tooling down

310 Split spoon ≈ 35'-37' Sand & gravel - wet some silt - continue driving casing

1400 Sample from bailer clean sand/gravel welding on next piece

Andrew Luptak 6/25/91

@ 8" Casing

1420 Resume advancing casing and tooling down -

1435 Casing down to ≃ 45' bailing now

500 Casing to ≃ 50' - bailer bringing up sand - ~~begin~~ resume tooling - hole to ≃ 40'

Andrew Bushell 6/25/91

1515 Bailer bringing up coarse sand & gravel ≃ 5c welding on next piece @ 8" casing

1615 Casing down to 55' Split spoon from 55'-57' - gray silt/clay - some sand

1700 Split spoon from 60'-62' - hook came off of spoon assembly - trying to

Andrew Bushell 6/25/91

108 6/28/91

fish it out

1800 Finally got spoon out. Made grappling hook out of rebar & snagged it. — Depart site.

~~Activities for day: Advance well at I11 to ≈ 60'~~

Andie Campbell 6/25/91

6/26/91 109

0730 Arrival — clear & warm will be near 90° today

Personnel

A. Campbell M&E
P. Doran Weston
D. Scheeengost B/M
W. Kessler B/M

Planned Activities:
Continue with well I-11

0800 Retaking split spoon from 60'-62'

Andie Campbell 6/26/91

110 6/26/91

Moist sand & gravel - will attach next piece of 8" casing

0840 Resume drilling 8" casing

0925 I call Sally Averill USEPA to up date her on activities - I will ~~state~~ stay on-site to noon tomorrow - I'm not to come next week - will let her know about the next week

Arctic Typhoon Geology

6/26/91 ~~110~~ 111

0940 Split spoon from 65-67' - dry clay - gray w/ some gravel

1000 Split spoon #6 70'-72' dry gray clay w/ bigger gravel - will attach next piece of 8" casing.

1025 Advancing casing - Butch Byer of Weston arrives on-site

1105 Split spoon 75'-77'

Arctic Typhoon Geology

Same dry gray clay + gravel - continue tooling down

1430 B/M working on drill bit - it is dull

1200 ~~Lunch~~ Lunch

1300 Attaching next piece of 8" Casing

1330 Advancing casing this piece will take it to ≃ 88

Andy Lyle 6/26/91

1415 Split spoon 80'-85' Same dry gray clay w/ some gravel - it is very hot this afternoon

1430 Tooling rosanes

1510 Split spoon 85'-87' 3" recovery - same gray clay and gravel drilling is very slow when going through this clay

545 Putting on next piece of 8"

Andy Lyle 6/26/91

1615 Advancing casing and tooling down - casing at approx. 85'

1645 Split spoon at 90'-92' no recovery - bailer & tool show that we are still in the clay driving casing again

1730 Split spoon 95'-97' same gray dry clay very hard driving

Andy Lyhall 6/26/91

1740 Resume tooling

1810 Depart site

Casing down to approx. 100'

Andy Lyhall 6/26/91

116 6/27/91

0730 Arrival hazy, hot, humid - high to be 90°

Personnel

A. Campbell	NEE
P. Doran	Weston
B. Kessler	B/M

0800 Preparing to develop wells I-13, S-11, & I-9 today - B/M getting equipment ready to - waiting on tanker to hold development water

Andy Bothell 6/27/91

117 6/27/91

0845 Tanker at I-13 - first one to be developed - B/M rounding up equipment for pumps.

0930 Setting up at I-13 - water level 20.75 from TOC

0950 Started pumping

1005 First reading

Andy Bothell 6/27/91

118 6/27/91

0950

Vol	Time	pH	SC x10 units	Temp	cloudy
150	~~1005~~ 1005	6.9	105	14.5	cloudy
450	1035	7.1	110	14.8	~~clear~~ slightly cloudy

Andrea Luptak 6/27/91

119 6/27/91

1020 Lowered pump to ≈ ~~145~~ 140' - within screen interval

1040 Lowered pump to ≈ 148' - silted up the pump - no water

1050 Remove pump to clear silt

1100 Re insert pump into well & try again pump still not working - remove it

Andrea Luptak 6/27/91

1130 Pump has been taken apart & clean out again – will put it ~~be~~ back together and try again

1145 Pump is ~~in~~ re-assembled & will be ~~be~~ tested in a bucket – still doesn't work – P. Doran of Western says it must be burned out – development stops. – tanker is sent on its way

Anch Ephlet 6/27/91

1210 The activities for the rest of the day will consist of making concrete pads for the wells that have been installed. Development of the wells will be done at a later date.

1230 Depart site

Anch Ephlet 6/27/91

122 7/2/91 - 7/3/91 123

In Office

1410 I Call S. Averill USEPA to get schedule for next week. She was not in - I left a message on her machine.

[signature] 7/2/91

0945 Called S. Averill - I'm to go out Tues & Wed. July 9 & 10 - will decide on the rest of the month later.

[signature] 7/3/91

1030 Arrival - Clear & warm high in Mid 80's

Personnel
A. Lapham M&R
J. Cairns Weston
D. Schreengost B/M
B. Kessler B/M

1045 Drillers set up at Price Bros. - Currently working on R-12 was I-12 but hit bedrock at 65' & will be a rock well

Andi Lapham 7/9/91

S-12 has been installed is 28' - I-11 went to 173' before hitting bedrock - well was set at 168'

AL They will probably go down another 40' or so on this one - the interface well will be done here next

1100 B/M will be working on the tool before going any deeper

Andi Lapham 7/9/91

1200 Well down to 78'
Bailer bringing up dark shale

1230 Lunch

1310 Resume tooling 11-12

1500 Bailing - well down to 88' - shale/sandstone

1615 Down to 100'
Bailer bringing up sand - brown tan sand
water level is 28'

Andy Gilbert 7/9/91

1715 Down to ≈ 103' - last measurement was wrong/ probably 95' - bailer bringing up some brown/tan sand. - coarser

1740 Down to 108'6" same sand for last 30' - some silt in this bailer - this will be total depth - will set well here

1830 Depart site

Andy Gilbert 7/9/91

0650 Arrival clear & warm high in the 80's today

Personnel

A. Cophell M&E

J. Cairns Weston

D. Schrecengost Boart Marner

B. Kessler "

Planned Activities

Set well at R-12

Andr Cophell 7/10/91

0700 B/M goes to EKCO to get well pipe

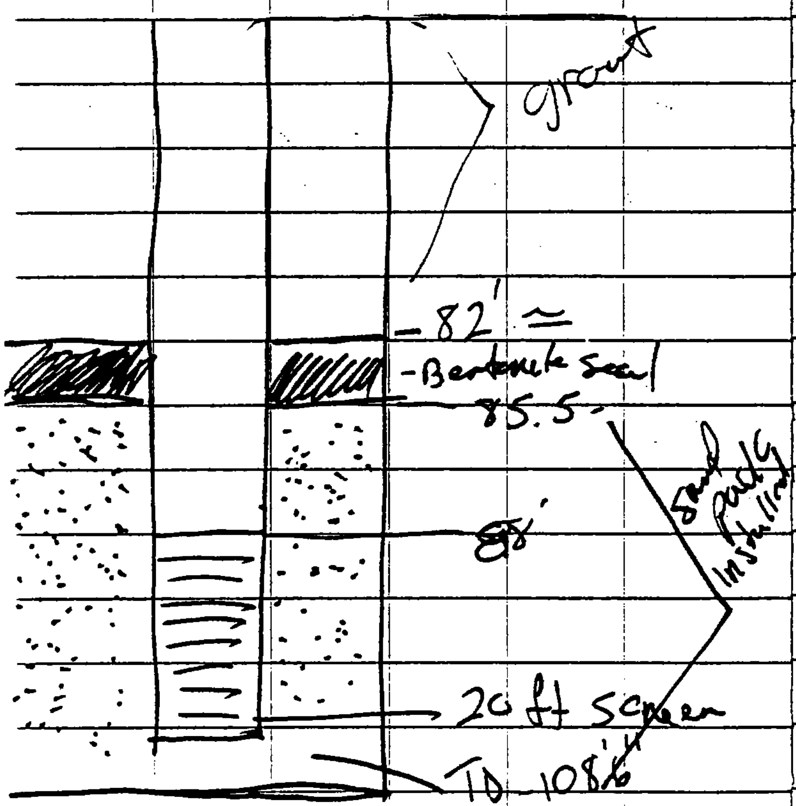
0745 B/M back with pipe preparing to set well

0800 Begin installing 4" stainless steel well casing - 20' screen

0830 Casing in - begin to install sand pack - to 2 feet above screen

Andr Cophell

7/10/91
R-12



Andr Lyhell 7/10/91

0850 Installing bentonite pellets for seal - 3' seal

0915 Bentonite installed - will let seal set for a few hours before installing grout

0955 I call Sally Averill and update ~~here~~ her on progress. I will leave today - no one schedule for next week - will check about following

Andr Lyhell 7/10/91

week

1030 Bouser Morrow taking rig down - will decon it prior to setting up to drill Well I-12

1110 Rig down - won't start - fuel pump is shot - B/M will have to get new one

1200 depart site

[signature]
7/10/91

June 27, 1991

Ms. Sally Averill
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X, R05031 - EKCO Housewares RFI
Field Activities Summary

Dear Ms. Averill:

Enclosed please find one copy of the field notes from June 17 through June 20, 1991 oversight activities at the EKCO Housewares site.

If you have any questions, please feel free to contact me at (312) 427-7433.

Sincerely,

METCALF & EDDY, INC

Denise Murk
Environmental Scientist

Enclosure

cc: Fred Norling
File

TESX, 111 W. Jackson Blvd., 15th Floor, Chicago, IL 60604
TEL: (312) 427-7433—FAX: (312) 427-3283

Metcalf & Eddy

June 24, 1991

Ms. Sally Averill
U.S. EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X Work Assignment No. R05031
EKCO Housewares RFI
Field Activities Summary: 6/17 - 6/20/91

Dear Ms. Averill:

Enclosed is one copy of the field notes for the field oversight of activities conducted at the EKCO Housewares site in Massillon, Ohio. The dates of oversight were 6/17 - 6/20/91. In addition to myself, personnel on-site included Thomas Cornuet and Pat Doran of Roy F. Weston, Inc., and Dave Schrecengost and William Kessler of Bowser Morner.

Activities observed were cable tool drilling for Interface Well I-13 and installation of Well I-13. Well I-13 was originally numbered I-16. The number was changed as a result of a reduction in the number of wells to be installed in this area. Total depth of Well I-13 is 151 feet 3 inches. The well is screened from 151 feet 3 inches to 141 feet 3 inches. A sand pack was installed up to 137 feet. A 2-foot bentonite seal was installed at 137 feet and the natural sand and gravel formation was allowed to collapse around the well up to 108 feet. The remainder of the hole was filled with a neat grout mixture.

Work is scheduled to resume at the site on 6/24/91. Per our telephone conversation on 6/18/91, Metcalf & Eddy will provide oversight on 6/25 - 6/27/91.

If you have any questions regarding this report, please call me or Jim Strayton at (614) 890-5501

Sincerely,

Andrew Campbell

AC/sac

Enclosure

cc: T.Lentzen, w/enclosure
J.Strayton, w/enclosure
TES X File, w/enclosure

2800 Corporate Exchange Drive, Suite 250, Columbus, OH 43231
Telephone: 614 890-5501 — FAX: 614 890-7421

1100 Arrival - sunny/warm high in Mid 80s

Personnel:
A. Cephell M's E
T. Cornuet Weston
S. Schreckengost B/M
B. Kessler B/M

Activities for today:
Continue with T-13
Current depth 85'

1130 Drilling started a little before 1100 still in the clay finished 6/17/91

1150 B/M replacing rope on cathead - B. Kessler had to climb to the top of the mast to thread it through - when they tried to use the old rope - the splice didn't hold so he had to climb.

1230 Lunch

1300 Finishing up w/rope will take split spoon

Andrea Cephell 6/17/91

1330 Split spoon from 85'-87' - dry, gray clay w/ some gravel

~~AG~~
DS

1345 Repairing split in 8" casing - welding patch on.

1410 Tooling again after advancing casing to ≃ 90' - much easier driving the casing this time

Andrew Gphell 6/17/91

1440 Split spoon from ≃ 90'-92' - no recovery - but tool bit shows we are still in same clay tooling on past casing before putting next piece on

1500 Welding next piece of 8" casing on

1520 Begin driving casing - this will bring TD to ≃ 90'.

Andrew Gphell 6/17/91

1600 95'-97' split spoon full recovery - fine gray clay - moist w/ some sand

1625 Advancing casing - will advance to ≃ 100'

1645 100'-102' split spoon gray clay very runny with some gravel

1715 Attaching next piece of 8" casing

Andy Lyhall 6/17/91

1740 ±TOR Advancing casing - will bring TD to ≃ 110'

Andy Lyhall 6/17/91

0700 No work today - Family emergency caused Tom Cornuet to have to leave site.

0900 I called Steve Jacket - Western to find out whats going on - he informed me that Pat Doran will be coming out today - don't know when

0930 See drillers at FOXCO - they are unloading well

Brenda Gykell 6/18/91

pipe & mill table trailer to shop

1015 I call S. Averill to update her - leave message

1500 S. Averill calls me - she wants me to stay through Thursday of this week - she would be coming out - she wants me here Tues. - Thurs. next week.

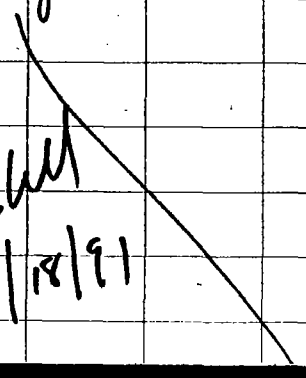
1520 I talk to B. Kessler W/M - will meet

Brenda Gykell 6/18/91

Pat Doran at ~~2~~ 1600 -
P. Doran has not checked in yet - will go to KKCO to meet there

1600 At decon area - will wait for P. Doran for a while.

1700 No one showed - Depart.



6/18/91

0650 Arrival - Warm - clear - high in upper 80's

Personnel

A. Campbell M ? K
P. Doran Western
D. Schrecengost Bowser Morner
B. Kessler "

0715 Begin advancing casing + tooling - casing depth ≃ 110'

0800 Split spoon 110' - 112' - sand/gravel w/ some clay
6/19/91

0830 Beginning to install 6" casing down hole same procedure as I-9

0915 6" casing on - driving casing + tooling resumes going a little quicker now that we're in sand/gravel

0940 Split spoon ≃ 115'-117' sand/gravel w/some clay -

Andr [illegible] 6/19/91

1000 Bailer bringing up gravel/pebbles at ≃ 115' - attaching next piece of 6" casing

1040 Split spoon ≃ ~~125'-127'~~ 126'-128' sand & gravel w/some clay

1050 Attaching next piece of 6" casing - begin tooling down - casing is moving down as tooling is being done

Andr [illegible] 6/19/91

1130 Split spoon 131'-133' Sand & gravel - some larger pebbles

1200 Split spoon 135-137' hard-packed sand & gravel

1220 Lunch

1305 Attaching next piece of 6" casing will take TD ≈ 145'

John Cahill 6/19/91

1345 Photo's 7 & 8 - set up at I-13 6" casing inside 8" casing

1410 Photo's 8 & 9 - emptying bailer

Split spoon 140'-142 moist sand & gravel -

1425 Advancing casing

1435 I call J. Stratton to get clarification on ~~clarify~~ AC screen level, sand pack

John Cahill 6/19/91

+ seal for well - ~~the~~ AC ~~Sand~~ I-9 had more sand pack than work plan called for - that was done to separate the formations - the sand/gravel from the clay - that is according to T. Cornuet of Westen. J. Strayton doesn't feel that ~~that~~ AC its a problem.

1455 At 145' - bailer bringing up bigger gravel

Andrea Copbell 6/19/91

1510 ~~Attach~~ AC Attach next piece of 6" casing - should be last - will bring TD to ≃ 152'

1545 Checking TD w/ tape measure - might be down deep enough Tape says 148'4" - going to bail some more - sands might be heaving into the hole

1615 TD - 149'6" Good to well - will get additional

Andrea Copbell 6/19/91

depth when the well is set & the casing is removed

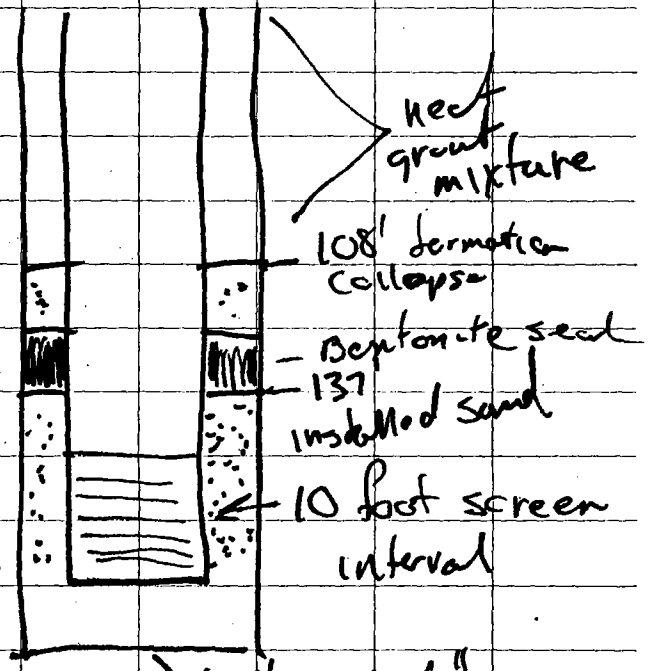
1620 Split spoon taken @ ~~158 - 152'~~ ~~148 - 150'~~ - sand/gravel moist; clean

1630 B/M going to get 4" pipe for well - will set 4" in tonight; finish up in the AM

1700 B/M back with well pipe

Andy Cahill 6/19/91

1710 Photos 10; 11 - installing 4" well casing



Andy Cahill 6/19/91

1805

1735 Casing has been installed, however there is 15' sticking out of the hole - there should have only been 8'-10" it is obvious that sand has heaved up into the hole - the 4" casing will have to be removed tomorrow, the well then will be bailed to remove the sand and the casing re-set

1830 Depart site.

Andrew Lyttell 6/19/91

Activities for the day:

- Advanced 6" casing to depth of 150'
- Attempted to set 4" well casing

Andrew Lyttell 6/19/91

6/20/91

0650 Arrival Clear & warm
will be hot in 90's today

Personnel:

A. Campbell	M & E
P. Doran	Western
D. Schrecengost	Bowser Morner
B. Kessler	Bowser Morner

Planned Activities

- Remove 4" well casing
- Bail heaved sand from well
- re install 4" well casing

Bruce Gphill 6/20/91

- Set well
- Remove 6" & 8" casing

0730 B/M beginning to remove 4" well casing

0805 4" well casing has been removed - bailing & tooling will begin -

0835 Tooling & bailing complete - TD in ~~bb~~ DC well measured at 151'3"
will install 4" casing again

Bruce Gphill 6/20/91

6/20/91

0905 4" Well casing installed - sand pack will be put in & then 8" & 6" casing removed & Well will be set

0915 Photo 12 installing sand in annulus

0940 Photo 13 - Casing pulling set up - beginning to pull 6" casing

0950 Photo 14 - 1st length of 6" out

Andy Uphill 6/20/91

1030 Beginning to remove 2nd piece of 6" casing

1100 I called Sally Averill - USEPA to update her on activities She was not in - left message on her machine

1135 Installing bentonite pellets for seal - installed Sand pack at 137'

1150 It is possible that the bentonite pellets were

Andy Uphill 6/20/91

powered in the first and have bridged - the tape won't go down much past 13' - where the water table is - removing the 6" casing and hopefully the plug will come out or will fall further in the hole

1215 6" casing out to ≈ 110' - ~~#~~ bentonite went down & formed in sand above screen or didn't and the formation

Andrew Cahill 6/20/91

collapsed and grout will go in next

1230 Lunch

1330 Will continue removing 6" casing

1400 6" Casing out - bentonite seal obviously dropped ~~to~~ down - tape stops at 108'

1430 B/M preparing to pull 8" casing & grout

Photo 15 - Top of 8" casing

Andrew Cahill 6/20/91

prior to pulling
photo 16 - 8" casing
pulling setup - will
see if it moves at all
and then add grout!
pull more & continue
the process

1450 Photo 17 - grout
mixing setup

1510 Using tremie pipe
to install grout down
the hole - photo 18
will start pulling up more
casing @ 1600 6/20/91

8" casing now

1600 - Continuing the
process of ~~tremie~~ Tremie
installing grout w/ a
tremie pipe & then
removing the 8" casing
very slow

1630 Continuing to pull 8"
casing - depart site

Debbie Lyshall 6/20/91

June 19, 1991

Ms. Sally Averill
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X, R05031 - EKCO Housewares
Field Activities Summary

Dear Ms. Averill:

Enclosed please find one copy of the field notes from field oversight activities conducted June 4-7, 1991 and June 11-12, 1991.

If you have any questions, please feel free to contact me at (312) 427-7433.

Sincerely,

METCALF & EDDY, INC

Denise Murk
Environmental Scientist

Enclosure

cc: Fred Norling
File

TESX, 111 W. Jackson Blvd., 15th Floor, Chicago, IL 60604
TEL: (312) 427-7433—FAX: (312) 427-3283

June 14, 1991

Ms. Sally Averill
U.S. EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X Work Assignment No. RO5031
EKCO Housewares RFI Oversight
Field Activities Summary 6/4-6/7/91 & 6/11-6/12/91

Dear Ms. Averill:

Enclosed is one copy of the field notes for the field oversight of activities conducted at the EKCO Housewares Site in Massillon, Ohio. The dates of oversight were 6/4-6/7/91 and 6/11-6/12/91. Personnel on-site were Thomas Cornuet and Harold Byers, Jr. of Roy F Weston, Inc., Dave Schrecengost, William Peterson, and William Kessler of Bowser Morner and Andrew Campbell of Metcalf & Eddy.

Activities observed were cable tool drilling for Interface Well I-9 and Interface Well I-13. Well I-9 was installed during this period, however, the installation was not observed. Information obtained from Thomas Cornuet of Weston showed that total depth of the well is 173 feet. This depth was considerably deeper than Weston anticipated prior to installation. The well is screened from 161.5 feet to 171.5 feet. A sand pack was installed from 150 feet to 161.5 feet with a natural sand pack from 130 feet to 150 feet. The amount of sand pack is inconsistent with the monitor well construction description contained in Section 4.1.1.4 of the RFI/CMS Work Plan dated May 1990. This section specifies a 2-4 foot sand pack above the top of the screen. A bentonite seal was installed from 120 feet to 130 feet and the remainder of the hole was filled with a neat grout mixture. A 2-foot bentonite seal is specified in Section 4.1.1.4 of the RFI/CMS Work Plan. As of 6/10/91, depth to water, taken from the top of the casing was 13.6 feet. The drilling at I-13 had reached a depth of 80 feet when operators ceased for the week on 6/12/91.

Due to an equipment (pump) problem, developement of Well I-9 was not completed as planned. A new pump will be available next week and the well will be developed at that time.

Per our telephone conversation, Metcalf & Eddy will provide oversight beginning again on Monday June 17, 1991.

2800 Corporate Exchange Drive, Suite 250, Columbus, OH 43231
Telephone: 614 890-5501 — FAX: 614 890-7421

If you have any questions regarding this report, please call me or Jim Strayton at (614) 890-5501.

Sincerely,

Andrew Campbell

Andrew Campbell
Environmental Scientist

AC/sac
Enclosures

cc: J. Strayton w/encl.
T. Lentzen w/encl.
TES X File w/encl.

TUESDAY 6/4/91

0700hrs: Depart C/S. for site.

0920hrs: M&E on-site. Signing in go find Weston personnel.

Weather.

Sunny, high to reach mid 70's. light wind from the North.

Personnel On-site:

Jim Stratton -	M&E
Andy Campbell -	"
Tom Cornuet	Weston
Dave	B/M
Wm (Skeeter) Patterson	B/M
Bill Kessler	B/M

Andrea Lyddell 6/4/91

1000 No activity yet - JS/AC go to Holiday Inn to check in and return to site - still waiting for the rest of the drilling crew to arrive - expect them after 12:00 noon

1315 Drilling crew is here & setting up at Well #9 - should be starting soon

1345 Begin cable tool for Well #9 - 10 ft. basher

Andrea Lyddell 6/4/91

6/4/91

- Schedule is to work 10 days on then 4 days off -

1420 Collecting split spoon 5'-7' - ~~tbs~~ for logging cuttings

Sand/gravel - brownish/orange with larger pebbles

10'-12' split spoon to log cuttings - hit water at 10' - Sand below

Andy Lyttell 6/4/91

6/4/91

15'-17' split spoon to log cuttings

gray/brown sand and gravel - more pebbles

20'-22' split spoon to log cuttings

Coarse sand with gravel/pebbles some grey clay

1600 Depart site to Tulee & Stranton to airport

1700 Depart airport end of day

Andy Lyttell 6/4/91

6-4-91

Days Summary

Set up and began
cable tool drilling
at well #9

[signature] 6/4/91

6-5-91

0700 Arrival - clear/cool
high to be near
70° light N breeze

Personnel on-site
A. Campbell - M&E
T. Cornuet - Weston
D. Schrecengost - Bowser/Morner
B. Kessler "
W. Patterson "

Activities planned for
today - continue
with Well 9 - current
depth is 42'

[signature] 6/5/91

6/5/91

0720 Welding 4th casing on - 1-20' section + 3-10' sections

0810

92'-45.5' - bailer - mostly gravel & very little sand some pebbles - no spoon at this depth

0825

45.5'-50' - bailer - lapse pebbles & cobbles and gravel - to B/M putting on next 10' pipe coarse sand

50'-55' - Sand from bailer

Hole Geled 6/5/91

6/5/91

0910

55'-57' - bailer - fine sand with traces of fine gravel

0920 60'-62' - split spoon Medium and fine Sand with a clay lens at approx 6.5' B/M welding on next pipe 10' going much faster with just sand to go through

0950 Photos 1 & 2 Kodak Gold 200 Pentax K1000 - bailing cuttings at Well I-9 at Intersection 6/5/91

approximately ~~65-66~~ AC
62' - still at 62'

1040 65'-67' split spoon
sand & gravel with
some clay - traces of
coal also

1130 70'-72' split spoon
coarse and medium
sand w/ gravel & some
clay - pebbles - welding
on next pipe - Approx.
10'

1200 - pipe down to
75'

[signature] 6/5/91

1215 Lunch

1300 Back at site - will
bail out hole and
collect split spoon
no spoon - tooling down

1415 ~~70~~ 75'-77' split spoon
coarse sand and gravel
6"-7" recovery

1500 80'-82' split spoon
6"-8" recovery - grey
clay w/ gravel - dry

1520 ~~1600~~ Going below casing with

[signature] 6/5/91

out - see if bedrock
is close - just clay
now

1637 At ~~87~~ 85 - installing
more casing #8

85'-87' split spoon -
same grey clay - wetter
with more gravel - broke
the shoe on the split
spoon

1730 ≈ 90' split spoon - gravel
cobbles - adding next
piece of casing
[signature] 6/5/91

1810 Casing down to
90' - shut down
rig - will finish tomorrow

1845 Depart site

Days Activities
Advanced well to ≈ 90-95'
have not reached water line

[signature]
6/5/91

48 6/6/91

0700 Arrival - clear & cool high will be in mid 20's

Personnel

A. Campbell	M&E
T. Cornuet	Weston
W. Patterson	Bowser/Morner
D Schrecengost	Bowser/Morner
W. Kessler	Bowser/Morner

Planned Activities:
Finish Well I-9
Install well

Andrew Upthegrove 6/6/91

6/6/91 49

0730 Begin tooling well I-9 at ≈ 90'-95'

0830 - Casing down to 99 ft. - repairing split in top casing - welding it

0915 Split spoon from bed - 102' - sand/gravel - full recovery

1010 Driving casing & backing - still in sand & gravel

Mark Upthegrove 6/6/91

1105 Still in sand/gravel at ≃ 105' - will weld + start another casing

1130 I call Sally Averill, U.S. EPA to update her on progress - she was not in - I left a message on her machine

1200 Lunch

1310 At ≃ 115' - driving casing

Mike Lykell 6/6/91

1413 Casing now down to ≃ 120' - welding next length of casing on - still in sand/gravel

1515 Split spoon from 125'-127' Fine to medium sand w/ gravel + some clay

1550 There is concern that it will be too difficult to remove the 8" casing from AS

Mike Lykell 6/6/91

Current depth - 130' - so
B/M is going to go get
6" casing that will be
inserted inside the 8" to
~~achieve~~ reach total + then
install well + remove
casings - This will take
a while as B/M has to
go to their shop to
get the 6" casing

1830 B/M returns to site
w/ pipe - decons
pipe + transports to
I-9 location

Will start up tomorrow

1945 Depart site

Activities Summary

- Tooled down to 130' -
no bedrock - no
well

[signature]
6/6/91

0645 Arrived - clear/cool
high near 80°

Personnel:

A. Layhell	M&E
T. Connect	Weston
J. Schreengost	Bowser Morner
W. Patterson	Bowser Morner
W. Kessler	Bowser Morner

Today's Activities:
Tool down to bedrock
& make the well at
Well B-9

Andy Layhell 6/7/91

0730 B/M beginning to
install 6" casing in
8" casing already in
hole to 130' - 6" casing
is screw type - this
process will make it
easier (hopefully) to
step remove 8" casing

0750 Photos 3, 4, 5, 6 - B/M
installing 6" casing inside
8" casing

0830 6" casing installed

Andy Layhell 6/7/91

bailing well & will begin driving 6" casing to bedrock

0930 Bailer going down to 135'-136' - mostly coarse sand w/ some gravel

1015 Bottom of 6" casing at approx 140' - bailer is bringing up coarse sand w/ some gravel

1025 Called S. Averill USKID to inform her of schedule

Richard Schell 6/2/91

she was not in - left message on her machine

1030 Bailer going to 140' bringing up sand w/ more gravel

1130 6" casing now down to 146' - bailer isn't bringing up much - some coarse sand

1140 split spoon 146'-148' full recovery - fine sand - sand & gravel - red sandstone at 148'

Richard Schell 6/2/91

1230 Bottom of 6" ≃ ~~153'~~ 146'
will add another piece
of 6"

1245 Lunch

1345 Added another piece
of 6" casing - pounded
down to ≃ 152'

1415 split spoon - 150-152'
tightly packed sand/
gravel some sandstone

[signature] 6/7/91

1510 Down to 152' - will
continue on - I-9?
M & E departs site
Sand & gravel w/ some
clay - 2" recovery

1520 Depart site

Activities for day
continued advancing hole for
Well I-9 - current depth
≃ 152' - deeper than
originally thought

[signature] 6/7/91

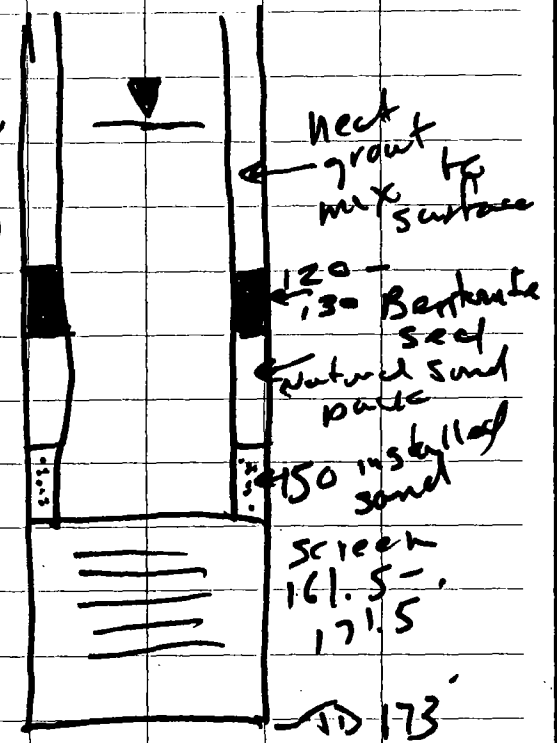
0930 Arrival - Warm & hazy
high near 80° - T-storms
& rain expected

Personnel
A. Campbell M & E
T. Cornuet Weston
D. Schreengost Bowser/Meiner
W. Kessler "

1000 B/M set up at well
I-13 at Ohio Water
Supply property - I
got an update
from T Cornuet
on I-9

Andy Campbell 6/11/91

Bedrock was at
172' - casing was pulled
& well set on Sat-Sun



Andy Campbell 6/11/91

1030 - B/M split spooning from 25-27' - this well will go to 150' and set well - this corresponds to depths from OVS Wells in some area spoon - sand/gravel very stiff gravel/clay at the end of the spoon - 16# blows

1120 30-32' split spoon sand/gravel with pebbles stiff/wet - orange/brown color sand

Auth Shell 6/11/91

1135 Welded next piece of 8" casing on - will take it to 39'

1200 Driving casing

1215 Lunch

1300 Tooling cautions at Well I-13

1315 Casing down to 35' + tool to 38'

split spoon 35-37 - sand/gravel/gravel clay w/pebbles

Auth Shell 6/11/91

64 6/11/91

1400 Rescue driving casing

1500 Casing & well down to ≈ 39' 39'-41' split spoon - sand/grey clay - very dry w/ some gravel - will add the next 8" casing pipe on now - then ~~have~~ has been some light rain - starting to hear thunder took

1600 Casing down to ≈ 45'

Andrew Upshall 6/11/91

Split spoon from 45'-97' sand/grey clay with gravel/pebbles

1615 Weston/B/M go to ABM Co to get wire & pipe for ~~Sub~~ pump that will be used to develop I-9 tomorrow

1715 Back to site casing down to ≈ 49 ft. Closing down

Andrew Upshall 6/11/91

1745 Split spoon 49'-51' sand & gravel with a 5" grey clay lens in the middle of the spoon - will add another length of 8" casing - will take depth to 59'

1805 Next piece of 8" casing is welded on beginning to drive casing

Andrew Lyhall 6/11/91

1845 Depart site

Activities for day: advanced well I-15 to ≃ 55'

Andrew Lyhall 6/11/91

0700 Arrival hazy & cool high to be in mid 70's might rain

Personnel

A. Campbell - M&E
T. Cornuet - Weston
D. Schrecengost - Bowser Morner
W. Kessler - Bowser Morner

0715 - B/M set up at I-13 driving casing & tooling down - Well I-9 will be developed later today

Andrew Campbell

0800 Split spoon from 55'-57'

0840 Casing down to ≃ 59' Split spoon from 59'-61' sand/gravel w/ grey, dry, clay at bottom of spoon 12" recovery Welding on next piece of 8' casing

0915 Begin driving casing this will take depth to ≃ 69'

Andrew Campbell 6/12/91

0940 I call Sally Averill and update her on progress - ~~site~~ schedule for next week is I will be here Mon-Wed. Sally will come up on Wed. + stay through Fri.

1000 Split spoon from 65'-67' - dry ~~at~~ grey clay with some gravel - continue tooling down

Andy Lyttell 6/12/91

1015 Harold "Butch" Byers from Western arrives on-site

1030 Tooling is proceeding slowly as the clay lens continues

1050 Split spoon 69'-71' dry, grey clay w/ more gravel - 12" recovery welding next length of 8" casing on

1200 Split spoon 75'-77' same dry, grey clay

Andy Lyttell 6/12/91

1300 Casing down to ≃ 80'
split spoon 80'-82'
dry, gray clay - c/ gravel
and some fine sand
will add next length
of 8" casing

1330 At Deccon area, decanting pipe and equipment needed for developing well I-13

1430 Pump does not seem to be working very well not pumping much ≃ 5 gals/min will not develop I-9 today

1530 Depart site

Dale's summary:
Advance hole for well I-13 to ≃ 80' - will start on this again Monday 6/17/91

Dale Cyrell 6/12/91

Metcalf & Eddy

May 1, 1991

Ms. Sally Averill
U.S. Environmental Protection Agency
230 S. Dearborn Street
Chicago, Illinois 60604

Re: TES X, R05031 - EKCO Housewares
Field Activities Report for Oversight of Packer

Dear Sally:

Please find enclosed a summary of the field activities conducted during the period of 4/15/91 thru 4/17/91. Activities during this period included geophysical logging of bedrock wells R-1, R-2 and R-4 and packer testing well R-1 at EKCO Housewares.

A copy of the field log is attached for your use. Please feel free to contact me at (312)427-8752, or Jim Strayton at (614)890-5501 if you have any questions.

Sincerely,

METCALF & EDDY, INC.

Thomas Lentzen
Regional Project Manager

cc: F. Norling
Document Control

TESX, 111 W. Jackson Blvd., 15th Floor, Chicago, IL 60604
TEL: (312) 427-7433—FAX: (312) 427-3283

AWT Affiliates of Air & Water Technologies Corporation

Metcalf & Eddy

April 25, 1991

Ms. Sally Averill
U.S. Environmental Protection Agency
Region V, 5HR-12
230 South Dearborn Street
Chicago, Illinois 60604

Subject: Field Activities Report for Oversight of Packer Testing at EKCO Housewares; TES X Work Assignment R05031

Dear Sally:

The enclosed submittal is a summary of the field activities conducted during the period of 4/15/91 thru 4/17/91. Activities during this period included geophysical logging of bedrock wells R-1, R-2, and R-4 and packer testing well R-1 at EKCO Housewares.

All activities conducted by the PRP contractor were according to approved plans and procedures. However, M&E has some concerns about the sample analysis and packer test data from Zone 3 in well R-1. During the initial stabilization period after the packers were inflated, the water level was fluctuating by at least 3 feet. It was almost a cyclic change in the water level with a periodicity of about two minutes. M&E and Weston's personnel thought a pump may have been cycling on and off. However, based on the problems with the packers' vent system we had on Wednesday, which gave similar fluctuations in the water level but on a greater scale, the data gathered during this test may be inaccurate because of a faulty packer system. M&E recommended that Weston consider r[redacted]f time permitted. The second concern M&E has is that the samples collected for analysis from this zone will have erroneously low levels of VOC's. This is because the yield from this zone was about 1 gpm, and the pump was designed to pump at 24 gpm. This resulted in the pump heating the water up to about 10 degrees Celsius above its true temperature. This change in temperature may have resulted in the volatilization of some of the contaminants. Therefore, the sample analyses from this zone should be considered qualitative at best.

A copy of the field log is attached for your use. Please call me if you have any questions or comments.

Sincerely,

James P. Strayton
Contractor Project Manager

cc: TES X File

2800 Corporate Exchange Drive, Suite 250, Columbus, OH 43231
Telephone: 614 890-5501 — FAX: 614 890-7421

4/15/91 Monday

0730hrs: To Massillon

1000hrs: On-site. Check in at plant. Weston folks are not here yet. Will call Sally to confirm the start date.

Personnel On-site:

J. Strayton - MIE

Paul Landry - Weston

Tom Cornuet - "

John Elstner - Earth Data, Inc.

Ted Trumbull - " "

Weather

55°F, rainy, sometimes heavy. high to reach mid 60's.

Earth Data, Inc. is doing the geophysical logging of the no Cos.

1100hrs: [illegible] out of R-1. Begin [illegible] logging equipment at R-1. Move to R-2 to pull pump.

1145hrs: Finish pulling pump at R-2, begin logging R-1, move to R-4 and remove pump there.

1215hrs: Complete removing pump from R-4. Continue logging R-1

[signature]

Activities Scheduled for the remainder of Today include: ~~Gamma~~ UPS logging GAMMA LOGGING R-2 & R-4, AND finishing R-4.

Butch Byer on-site at 1245hrs.

1330hrs: Complete logging hole. Used GAMMA & RESISTIVITY as well as well profile. Interpret log w/ Paul Landry. Paul decides to test 3 intervals - the three cleanest sandstone zones.

1345hrs: Set up decon pad, then take 15 min lunch break.

Jon P. Stu

Drillers begin steam cleaning packers & remaining equipment.

The new A.H.T. project mgr arrives on-site at 1400hrs.

1415hrs: Butch Byer & Monty go to meet w/ adjacent property owners to gain site access for RFI drilling.

1435hrs: Begin setting up at R-2 to log it.

1445 hrs: Begin logging R-2 w/ caliper. TD of boring log is 179'. We could only get the

Jon P. Stu

probe to 162' bgs. The hole is silted in from ~ 150' to TD. Working to get caliper arms fully extended in the bottom of the hole.

1520 hrs: Complete caliper log. Setup to run gamma and resistivity log.

1530 hrs: Begin running resistivity log. 'Butch' Byden & Monty are back from their meetings.

1605 hrs: Complete runs. Ran this hole twice. There is some difference in the logs between wells R-1 & R-2. Paul is reinterpreting his aquifer zones for R-1 based on the new info.

James P. Strong

1620 hrs: Begin down of logging probes. Get ready to log well R-4.

1630 hours: Begin setup for logging holes JPS at R-4.

1700 hrs: Begin lowering JPS caliper into & resistivity probe into well to get a log. No caliper on this hole because no aquifer testing is planned for it.

1725 hrs: Complete logging R-4. Begin cleaning up & shut down

1815 hrs: Off site

James P. Strong

Summary of Today's Activities

- Mob to site.
- Log wells R-1, R-2, & R-4 with T & resistivity.
- Log wells R-1 & R-2 with caliper.
- Set-up for packer testing at R-1.

Planned Activities For Tomorrow:

- Packer test R-1 at a minimum of 3 intervals.
- Packer test R-2 (time permitted)

[signature]
4/15/91

Tuesday 4/16/91

0710hrs: J.S. on-site. No one on site. J.S. leaves to get breakfast.

0745hrs: J.S. on-site.
0750hrs: Weston on-site.
0820hrs: EARTH DATA folks on-site

Personnel On-site:

J. Strayton - M&E
P. Landry - Weston
T. Cornuet - "
J. Elstner - Earth Data
Ted. Turnbull - " "

[signature]

Today's Weather

Currently overcast, cool (55°F), light winds from west. High to reach mid 60's, w/ sunshine.

Drillers begin setting up at R-1 to begin packer test. Pressure transducers are set in MW's: L-2 (shallow, Lagoon well); R-5 (near creek); R-2; I-2 (interface well); R-4

R-1: Zone 1 102' - to TD

Using a Hermit 2000 Data Logger w/ 8 port capacity.

Butch Byers & Monty on-site @ 0940

Pre Pumping Water Levels (TOC)

L-2: 16.39'

R-5: 25.06

R-2: 30.39

I-2: ~~35.~~ 24.29

R-4: 13'11" (13.916)

1021 hrs: Run calibration test on Observation wells. Need to replace data logger in well I-2.

Water levels in R-1 w/ packer inflated are beginning to stabilize.

▼ 42.80' bgl - above packer

▼ 49.4' bgl - below packer

bottom of top packer is at 102' bgl.

R-1

Upper: 42.69'

Lower: 49.36'

1105 hrs: Start packer test on Barrel @ 3 gpm - 3' dd

1106 hrs: increase to 4 gpm - 3' dd

1107 hrs: increase to 5 gpm - 4' dd

1112 hrs: " " 11.9 gpm - 7' dd

1120 hrs: increase to 13 gpm - 9' dd

T.C. checks Temp, pH & conductivity of water. pH: 7.4, T(°C) 13, and C(61D).

Photos:

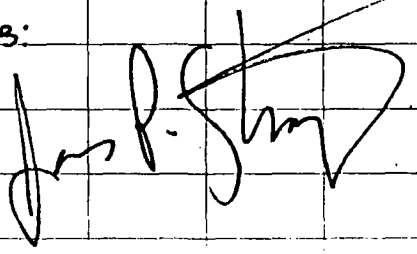
#1: Setting up data loggers at R-5. 0905

Taken by J.P.S. Witness: Tom Connet

Photo #2: 9:25 hrs

Photo #3: Packer test set-up at R-1. Witness: T. Connect 1028 hrs.

Photo #4: Heater set-up for R-1. Witness: T. Connet 1112 hrs.



1139 hrs: ~2 volumes pumped.
T.C check water parameters.
pH: 7.3
T°C: 13°C
Cond: 600 µmhos

1141 hrs: increase pumping rate to 16gpm
⇒ 9.88' dd.

1151 hrs: increase Q to 24 gpm
⇒ ~14' dd. No Δ in ▼ above packer.

1203 hrs: sample for parameters
T: 13 °C
pH: 7.4
Cond: 555

1205 hrs: Q = 24 gpm
dd = 13.6' dd

1215 hrs: ~11 volumes
pH: 7.5
T: 13 °C
Cond: 590
Will collect 1st sample for VOA's.

1222 hrs:
pH: 7.5
T: 13 °C
Cond: 580

1225 hrs: Collect 1st VOA's sample from sample port. ~12.5 volumes suspect

1235hrs: Photo of T.C. checking out storage tanks for purge water.

1245hrs: Shutoff pump after sampling second VOA set.

Recovery at shutoff (15 sec. intervals)

62.76
52.71
51.75
51.65
51.61
51.56
51.46

Total purged: 18.9 well volumes; 1944 gals, 100 mins total pumping

Jason P. Stanley

90% recovery in ~10 minutes. Will wait a minimum of 15 mins before ending the first test.

Deflate packers & end test @ 1305hrs: Download data from R-1 transducers & loggers. Prepare to change packer depths.

R-1 Zone ~~2~~ 3 will be from 61-73' bgl. R-1 Zone 2 will ~~d~~ JPS be tested tomorrow. It is from 78-98' bgl.

Static water level at 43.06

Jason P. Stanley

1500 hrs: Inflate both packers. Data logger activated w/ transducers above, between, & below packers.

1523 hrs: R-1 Zone 3 test
- ▽ (A) Above 42.12'
- ▽ (m) Between 41.21'
- ▽ (B) below 48.55'

Note: stable above & below packers. middle zone is variable. Head varies up to 3' w/in a 1-minute period. May be effects of plant wells.

Saw a Theis type curve on the

[signature]

real time data plot. looked like a pump was turned on & then off recovery to a stable level of 43.08'.

1542 hrs
- 42.06' A Start
- 43.08' m
- 48.51' B

Some leakage along bottom packer may be occurring. Saw about a 1' drop in the lower zone's head.

Getting about 0.8 gpm pumping rate. Sc = 0.1 gpm/ft
Will try & increase to ~1.5 gpm.

[signature]

1552 hrs: Increase rate to 1.2 gpm.
Q is at ~1.12 gpm.
s ≈ 11 ft. & increasing.

T: 17.5 °C @ 1601 hrs
pH: 7.3
SC: 860

~20 min/volume. Will pump for at least 60 mins.

1615 hrs: Q is down to 0.8 gpm will increase it.
Computer program appears to lock up so we are not getting updated readings from the transducer.
[signature]

John Elstner went to get some drivers & will have to fix the program upon his return. He [initials] We will continue to pump at ~1 gpm.
1618 hrs: 1st set of VOC's collected
1630 hrs: Call Sally Averall. Tell her what is going on. She said OK. Finish up today & tomorrow morning.

1700 hrs: sample for parameters.
pH: 7.4
T: 16.5 °C 3 Volumes purged
Cond: 875

Water Temp is high. Maybe due
[signature]

to the low flow rate heating up the pump.

1722 hrs: Sample for parameters.
T°C: 16.0 °C
pH: 7.6
Cond: 850 µmhos

1724 hrs: Collect 2nd set of VOA's. We are still seeing a fluctuation in the water level in this zone. Also have some variations in Q.

1730 hrs: Prepare for recovery curve & shutoff of pumps.

Jan P. Stump

A 42.28
M 52.26
B 49.56
} at pump shutoff

Need to recover to 44.0' for 90% recovery. Recovers to 46' fairly rapidly then get a leveling of the curve.

90% recovery at ~~1758~~ JPS 1753 hrs.
Stop test. Tom C. will let JPS the Hoamt run overnight to get background readings.

Jan P. Stump

Begin cleaning up & preparing to stop for the day.

1830hrs: Off-site.

Today's Activities:

- Packer test (pumping) Zones 1 & 3 in MW R-1. Zone 1 is from 102'-T.D.; Zone 3 is from 61'-73' bgl.

Planned Activities for Tomorrow:

- Packer Test (pumping) Zone 2 in MW R-1 from 78-98' bgl.
- Set up at R-2 for next packer test.

from P. Stanton 4/16/91

WEDNESDAY 4/17/91

0730hrs: J.S. on-site. Weston on-site.

0820hrs: Drillers on-site.

Personnel On-site

J. Stratton - M&E
P. Landry - Weston
T. Cornuet - "
J. Elsner - Earth Data, Inc.
T. Turnbull - " "

Weather: Overcast, 58°F, light drizzle. Forecast is for showers during the day, high to reach 65°F.

from P. Stanton

Planned Activities for Today:

- Packer test "Zone 2" in well R-1;
- Demob from R-1, steam clean equipment;
- Set-up at R-2 & Packer test Zone 1.

0830 hrs: Earth Data begins pulling packers out of R-1 to adjust packer spacing for the Zone 2 test.

0900 hrs T.C. arranges to have yesterday's pumped H_2O put into the air stripper system.

James P. Stanton

Weston & J.S. discuss placement of packers for R-2. Discussion focuses on using the packer test to determine the connection between the bedrock & outwash aquifers. This can be accomplished by keeping a transducer in I-2 and pumping & packering off the interface contact and pumping a 38' zone of interbedded shales and sandstones, with a bottom packer.

1040 hrs: Prepare to inflate packers.

Pre inflation water levels

A - 43.12

M - 43.08

B - 43.12

James P. Stanton

Packer interval for Zone 2 is 78.75' to 98.02'. Top packer at 200psi, bottom packer at 230 psi:
0.432 psi x hydrostatic depth x 1.3 safety factor + 80psi (initial inflation to expand packer). Packer diameter is 5.5" uninflated.

1112hrs: 8 mins after packer is inflated,
▽ A: 47.99'
JDS ▽ m: 36.55'
▽ B: 49.80'

Filled pipe up. Apparently there is a leak in the checkvalve because the water in the packed zone rose to ~/in 7' of the surface. We will turn on the pump for a short while to evacuate the purge line & clear the checkvalve. We will recheck the transducers after the pump is shut off. The ▽ should return to ~36.55' bgl.

1150hrs: Problem w/ a vent line on the packer system is affecting the ▽ btwn the packers. They will pull the packers & try to repair them. Then they will try to test it again.
May also packer test the top 10' of the 12-1 well.

Well R-2 packer test zones will be:

Zone 1: 87' to T.D.

Zone 2: 50' to 83'

Zone 3: Check seating of well casing 50' to TOC

The water level (according to the transducer reading) was fluctuating upwards of 10'.

1230 hrs: JPS off-site. Packers are being deflated & the pressure lines will be inspected. The fluctuations JPS in the ▽ in the zone 3 interval during yesterdays test may have been the result of this same

Jim P. Stacy

back in the packer system.

Today's Activities:

- Packer test Zone 2 and maybe "Zone 4" (the casing seal)
- Deron & Mike to R-2 for packer testing.

James P. Stacy

4/17/91

Metcalf & Eddy

Received 3/26/91

March 26, 1991

Ms. Sally Averill
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Re: TES X, R05031 - EKCO Housewares
Field Activities Report: March 20, 1991

Dear Ms. Averill:

Enclosed is one copy of the field notes for the RFI oversight activities at the EKCO Housewares site in Massillon, Ohio for Wednesday, March 20, 1991.

Personnel on-site during this period were Harold Byer and Tim Farrell of Roy F. Weston, Inc.; Jeff Burman of EKCO Housewares; 2-two man crews from Midwest Tank Testing Company; and Barry Nelson of Metcalf & Eddy.

Activities during this period consisted of testing the integrity of four underground storage tanks (USTs) located on the west side of the plant between the rear of the processing building and the railroad tracks. Midwest Tank Testing of Columbus, Ohio, used the "Acufit" system to evaluate the USTs. Because two of the tanks are normally empty, water was hauled in and used to fill the tanks for the test. The remaining two tanks contained processing mixtures presently used by the facility. The tanks were filled to the top by EKCO personnel under Midwest's direction.

Results of the tests indicated that all four USTs were tight with no leaks. It was initially thought that one of the process tanks was leaking slightly, but Midwest determined that it was due to temperature differences between the product in the tank and the product added to fill the tank. There was no loss of product volume, but instead an end leak in the testing system caused by the temperature differential. After the temperature equilibrated, the test was run in excess of one hour with no leaks detected.

If you have any questions, please feel free to contact either Jim Strayton at (614) 890-5501 or me at (312) 427-8752.

Sincerely,

METCALF & EDDY, INC

Denise Murk

Denise Murk
Environmental Scientist

cc: Fred Norling

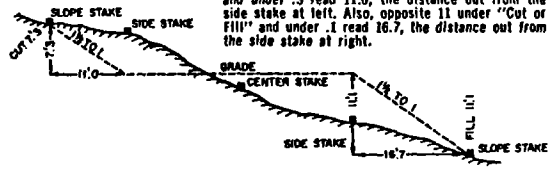
TESX, 111 W. Jackson Blvd., 15th Floor, Chicago, IL 60604
TEL: (312) 427-7433—FAX: (312) 427-3283

AWT Affiliates of Air & Water Technologies Corporation

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

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Police	(216) 830-1735
Sally Averill U.S. EPA RPM	(312) 886-4439

Wednesday March 20, 1991

Weather: Sunny, breezy, 50°F, high to reach 65 today.

Personnel Onsite:

Barry Nelson	M:E
Harold Byer Jr.	Weston
Tim Farrell	
~~Brad~~ Jeff Burman	EXCO
2-2 man crews.	Midwest
	Midwest

Midwest Tank Testing Co.
Columbus, OH (614) 224-4560

1015 Arrive onsite. B. Nelson met and discussed daily plans w/ Weston employees. They are using an "Acufit" system to test the tanks.

1030 Begin testing tanks. Weston expects to be done entirely this afternoon.

1148 Still running tests. So far the tanks appear tight according to Midwest

PHOTO 1: IBIF, toluene, etc. mix tank w/ test apparatus

PHOTO 2 Tank is filled w/ H_2O because it hasn't been used yet. Both photos 1:2 are taken at rear of building next to RR tracks.

PHOTO 3 overview PHOTO. Computer is inside Midwest Van.

1155 Midwest has 2 vans (4 people) doing 2 tanks each per run.

PHOTO 4 Second Midwest Van testing add'l 2 tanks.

1240 Stopped test on water-filled tanks. Both were ok.

1428 All tanks are ok except solvent tank closest to the factory entrance.

The volume is steady but temperature of the product they added to top off the tank was higher so there is some end leak of the testing system. We have to wait for system to equilibrate.

1540 End test on final solvent tank - results are ok. Weston has been given draft printouts of results and will submit them with the report in a few weeks.

PHOTOS "After" photo of #1

1615 B. Nelson offsite - travel back to Columbus.

Summary:

All tanks (4), tested by Midwest Tank Testing were found to be tight with no apparent leaks. The data will accompany the report to be submitted in a few weeks.

Barry R. Nelson 5-20-91